The Report Committee for Annette Lynn Cantu
Certifies that this is the approved version of the following report:

Impact of Childhood Anxiety on Family Functioning in a Cognitive Behavioral Therapy Treatment Program with Parent Training

APPROVED BY
SUPERVISING COMMITTEE:

Supervisor:

Timothy Z. Keith

Kevin D. Stark

Impact of Childhood Anxiety on Family Functioning in a Cognitive Behavioral Therapy Treatment Program with Parent Training

by

Annette Lynn Cantu

Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

May 2017

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Anxiety disorders occur as the most common psychological problems of childhood and adolescence (Costello, Egger, & Angold, 2011; Weems & Silverman, 2013). Children with anxiety disorders often face challenges in multiple aspects of life, including school performance, self-confidence, social and family interactions, and emotional well-being (Crawford & Manassis, 2001; Greco & Morris, 2005; Van Ameringen, Mancini, & Favolden, 2003; Wilson & Hughes, 2011). These children may have a higher risk for developing comorbid disorders and psychopathology in adulthood, including depression and mood disorders, and higher rates of substance abuse and suicide (Ost & Treffers, 2003; Weems & Silverman, 2013). Investigating the best methods to enhance treatment efficacy may curb these possible risks as well as improve overall quality of life for children and adolescents with anxiety disorders.

Cognitive behavioral therapy (CBT) has been shown through numerous randomized clinical trials to be effective in reducing anxiety symptoms in children and adolescents (Compton et al., 2010; Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008; Murray et al., 2009). Researchers have recently begun to examine the effects of involving parents and family in CBT, which typically has minimal parental involvement. However, the appropriate amount of parent involvement and whether involving parents may ultimately aid or impede treatment remains a question for both research and practice (Barmish & Kendall, 2005; Breinholst, Esbjorn, Reinholdt-Dunne, & Stallard, 2012; Ginsburg, Silverman, & Kurtines, 1995; Siddaway, Wood, & Cartwright-Hatton, 2013). The presence of parental anxious symptomatology, parent psychopathology, and certain parenting behaviors and styles may reduce the effectiveness of CBT for children with anxiety disorders (Bögels & Brechman-Toussaint, 2006; Crawford & Manassis, 2001; Drake & Ginsburg, 2012; Festen et al., 2013; Silk et al., 2013). The impact of family factors on child anxiety is unclear, as is the impact of child anxiety on family factors, specifically family functioning (Silverman, Kurtines, Jaccard, & Pina, 2009). Demonstrating clear pathways between childhood anxiety symptoms and

parent and family factors, particularly in regards to family functioning, has been called for in recent meta-analyses which aim to identify whether and how parents should be involved in youth anxiety treatment (Barmish & Kendall, 2005; Breinholst et al., 2012).

Although researchers have begun examining the role of family and parents in child anxiety disorders and treatment, most studies have focused specifically on the interplay between parents and children, examining less the family as a complex unit. The influence therapy may have on family functioning, particularly family dynamics and relationship quality, might play a role in child anxiety etiology and treatment (Jongerden & Bögels, 2014). Whether family functioning aids in the reduction of the child's anxiety problems remains an understudied topic with calls for more research (Jongerden & Bögels, 2014; Silverman et al., 2009). Currently, research suggests that family functioning affects child anxiety treatment to some degree, though the possibility remains that the effect of child anxiety on family functioning may be stronger (Ginsburg, Siqueland, Masia-Warner, & Hedtke, 2004; Jongerden & Bögels, 2014).

Family systems theory would suggest reciprocal effects regarding how family functioning and child anxiety influence each other. Systems theory views the family as an open system made up of a complex interplay between subsystems (e.g., individual, marital, dyad) and external systems (e.g., extended family, schools, religion, work). Using a whole-system approach, the family is seen through its interactions and developments as each individual and subsystem relates to the outside environment as well as to other individuals and outside systems. Individual members of the family are seen as mutually influencing one another through their interactions. Systems theory has led to various types of applied theories, including Bronfenbrenner's Ecological Systems Theory, Bowenian Family Systems Theory, and the Process Model of Family Functioning. Although some research has acknowledged the reciprocal relations between child and parent factors in the etiology and development of child anxiety disorders (Silverman et al., 2009; Wijsbroek, Hale III, Raaijmakers, & Meeus, 2011), most of the research focuses on the unidirectional influence of parent factors on the development of youth with anxiety. Studies examining the role of the family in child anxiety largely

depend on existing measures and clinical experiments to document specific family characteristics and have not typically been grounded in theoretical models of family functioning.

The primary direction of influence, or possible bidirectionality, of family functioning and child anxiety remains a question in child anxiety disorder research (Crawford & Manassis, 2001; Silverman et al., 2009; Wijsbroek et al., 2011). As researchers explore the benefits and risks to family and child from participating in various degrees in CBT treatment, experts have called for more investigation of how family functioning is affected by and affects children with anxiety, as this information may improve treatment procedures and conceptualizations (Ginsburg et al., 2004; Hughes, Hedtke, & Kendall, 2008; Keeton et al., 2013; Kendall, Settipani, & Cummings, 2012).

The proposed study will use data from an ongoing study at the Texas Child Study Center in Austin, Texas to investigate one portion of this needed area of research: whether child anxiety potentially affects family functioning, particularly when conducting treatment with an added parent component which targets factors associated with family functioning. In order to continue to improve on the development of appropriate treatment protocols and to help practitioners decide the most suitable factors to target in treatment, this study aims to bring attention to the family system as a unit from which practitioners can understand child and adolescent anxiety. This paper proposes a study which will use the Process Model of Family Functioning to examine the relation between family functioning and child anxiety. The primary purpose of this study will be to determine the magnitude of the relation between family functioning and child anxiety pre-treatment and to determine if there is a potential effect of reduction in child anxiety on family functioning.

Chapter 2: Integrated Analysis

When a dependent child diagnosed with an anxiety disorder seeks treatment, he or she is seeking treatment with at least one parent. Thus, the family system is affected to some degree by this treatment if for nothing but the cost of transportation as well as the benefit and cost of improvement (or lack thereof). In regards to the etiology and development of anxiety disorders in children, the question remains regarding the degree to which the child's symptoms of anxiety result from family dynamics and characteristics and from factors internal to the child (Barmish & Kendall, 2005; Breinholst et al., 2012; Ginsburg et al, 1995; Siddaway et al., 2013). Despite the lack of clarity in how much family and child influence one another, they nonetheless must be seen as a functioning system insofar as they exist in relation to one another, thus a family systems perspective is essential to maintain an accurate portrayal of the child and their anxiety (Walsh, 2011). This integrative analysis will first discuss childhood anxiety disorders, including its diagnostic criteria and etiology. Because this proposal seeks to incorporate and work from a family systems perspective, common family factors associated with childhood anxiety disorders will be discussed, concluding with a discussion of family functioning and its relation to child anxiety. Within this context, the Process Model of Family Functioning (PMFF) will be introduced along with a discussion of the Family Assessment Measure (FAM), the measure constructed according to the PMFF. A brief discussion of treatment and the directionality of the influence between child anxiety and family functioning will follow. This integrative analysis will conclude with a summary and interpretation of current research.

CHILDHOOD ANXIETY DISORDERS

Diagnostic Criteria

While anxiety can be adaptive and helpful in most people, anxiety at the clinical level has been shown to impair childhood functioning as well as increase the likelihood of a psychiatric disorder later in life (Kessler, Berglund, Demlar, Jin, & Walters, 2005). Additionally, although varying levels of anxiety in general may present at different points

in a person's life, a child or adolescent suffering from anxiety seeks to primarily avoid anxiety-triggering events or has uncontrollable worry or heightened physiological responses, which may lead to a clinical level (Silverman & Ollendick, 2005). Anxiety will be discussed in this analysis primarily in the characteristics of the three most common forms of anxiety found in children: Generalized Anxiety Disorder (GAD), Separation Anxiety Disorder (SAD), and Social Phobia (SoP). This study proposal will investigate children with a primary diagnosis of GAD, SAD, or SoP.

The most recent edition of the Diagnostic Statistical Manual (DSM-V) had few significant changes from the DSM-IV for the diagnosis criteria of anxiety disorders, particularly as they relate to children. Additionally, GAD, SAD, and SoP changed little in terms of their essential criteria from the DSM-IV. GAD is identified by chronic, excessive worry about everyday life issues for a time period of at least six months (American Psychiatric Association, 2013). These GAD symptoms often include somatic complaints such as stomachaches, headaches, irritability, and poor concentration. SAD's primary characteristic is a fear lasting at least four weeks of separation from major attachment figures. This fear will include a concern that harm will happen to the child or to parents if the child is separated from one or both parents. Children with SAD will worry excessively regarding anticipated separation from parents, and they will often avoid situations where they would be left alone, including sleeping alone (Silverman & Albano, 1996). SoP's primary characteristics include excessive worry or extreme discomfort in one or more social settings along with a significant fear of embarrassment or scrutiny by others in these settings (Silverman & Albano, 1996). Children with SoP will often avoid feared social or performance situations or at least endure these situations with intense anxiety or distress. For children, the duration of these SoP symptoms must be at least 6 months (American Psychiatric Association, 2013).

Etiology

Academics and researchers generally agree upon the multifinality and equifinality of internalizing disorders such as GAD, SAD, and SoP (Beauchaine & Hinshaw, 2013).

This developmental complexity lends to the theory of anxiety disorders as amalgamations of multiple pathways both developing into anxiety disorders as well as multiple pathways that anxiety disorders can develop into. Generally, anxiety disorder symptoms arise from interactions between biological vulnerabilities and environmental risk factors (Weems & Silverman, 2013). More specific experiences may contribute to the development of an anxiety disorder, however, when assuming a developmental perspective in the etiology of anxiety disorders, complex transactions among multiple factors both internal and external to the child must be considered.

Biological Processes

Studies examining twins suggest that heritable influences can be accounted for about a third of the variance in childhood anxiety symptoms (Gregory & Eley, 2011). The heritability of anxiety disorders, however, depends on many other internal and external factors beyond genes. Additionally, a person's genetic vulnerabilities to anxiety vary depending on the age and sex of the person, the assessment method used, and the type of anxiety assessed (Gregory & Eley, 2011). Most recently, studies have shown a link between genes and anxiety-related traits, such as behavioral inhibition (Fox et al., 2005). Thus, while genes have been shown to be influential in the development of anxiety, researchers propose that the interaction between genes and the external environment of the child (e.g., child-rearing behavior, family dynamics, peers, etc.) hold the most influence on childhood anxiety. Because of this, the heritability of anxiety appears to increase considerably in adolescence and young adulthood (Beauchaine & Hinshaw, 2013; Bergen, Gardner, & Kendler, 2007).

In addition to genetic influences in the development of anxiety disorders, childhood temperament has been found to be a contributor to childhood anxiety. While temperaments such as shyness and inhibited behaviors are considered distinct from anxiety symptoms, nonetheless, they may be associated with the early identification and development of anxiety, particularly as some temperamental traits can manifest into avoidance, stress, or similar anxiety symptoms (Pérez-Edgar & Fox, 2005). Pérez-Edgar

and Fox (2005) have argued for a clearer definition of temperament in the construction and investigation of childhood anxiety, specifically in terms of the various forms of anxiety and temperament. They reviewed current research regarding the associations between temperament and anxiety. Currently, the most commonly linked temperamental traits associated with anxiety include negative affect, behavioral inhibition, reactivity and self-regulation mechanisms, (Derryberry & Rothbart, 1997; Kagan, Reznick, & Snidman, 1987; Lonigan, Carey, & Finch, 1994).

The child, as both a producer and product of his or her environment, will undoubtedly engage with multiple influences and his life can develop into a number of possible scenarios for their adult life. Taking the multifinality and equifinality of anxiety symptoms into account, temperament and genetic makeup must not be seen as directly influential in the development of anxiety (Beauchaine & Hinshaw, 2013; Gregory & Eley, 2011). In other words, because a child exhibits shyness does not mean he or she will develop an anxiety disorder. Rather, risk for developing an anxiety disorder varies according to multiple factors beyond biological factors. These factors are discussed below.

Cognitive Processes

Childhood anxiety has been associated with a variety of cognitive processes, such as encoding, interpretation, and recall that can lead to erroneous maladaptive biases, thoughts, and behaviors (Beauchaine & Hinshaw, 2013; Muris & Field, 2008; Vasey & Dadds, 2001). The behaviors that result from these cognitive processes, such as biased interpretations, judgments, memories, and attentional selectivity, can work together to foster and maintain anxiety (Vasey & Dadds, 2001). Thus, these biases and cognitive distortions may influence the interpretation of external and internal stimuli that the child with an anxiety disorder may face, leading to the consolidation and validation of those erroneous anxious interpretations. Although these cognitive processes have been associated with anxiety disorders, Weems and Silverman (2013) have emphasized the need to integrate affective, cognitive, and physiological components of anxiety alongside

the larger environmental context when considering the development of anxiety in youth. For example, in a recent study by Weems et al. (2005), heart rate response was found to interact with cognitive biases, showing that those with high cognitive errors and high heart rate reaction may have a higher risk for developing anxiety disorders.

Social and Interpersonal Processes

In addition to cognitive and biological influences and contributors to the development of anxiety in children, various social and interpersonal factors have been found to be influential. This section will discuss common social and interpersonal factors related to childhood anxiety, including parent psychopathology, parent anxiety, socio-economic status (SES), gender, ethnic background, and family composition. The following section will then discuss the social influence considered in relation to childhood anxiety, family functioning.

Parental psychopathology. A parent who suffers from a mental illness may aggravate anxiety symptoms in children (Ginsburg & Schlossberg, 2002). Some researchers investigating whether parents should be included in treatment for children with anxiety have concluded that parental psychopathology should be targeted and treated during or prior to treating the child (Breinholst et al., 2012; Berman, Weems, Silverman, & Kurtines, 2000; Cobham, Dadds, & Spence, 1998; Creswell & Cartwright-Hatton, 2007). They argue that it may be difficult for a parent with depression or bipolar disorder, for example, to realize, support, and acknowledge the child's growth in treatment (Barmish & Kendall, 2005; Berman et al., 2000; Breinholst et al., 2012; Ginsburg & Schlossberg, 2000). Parenting stress, depression, and anxiety (which will be discussed further below) also have been found to predict problematic parenting practices that could influence and exacerbate a child's anxiety symptoms (Bayer, Sanson, & Hemphill, 2006).

Parent anxiety. Parent anxiety and its transmission to the child has been extensively researched as a possible mechanism for the effect of parental psychopathology on childhood anxiety. Overall, a strong connection between parent and

child anxiety has been found, although the extent to which parent anxiety may affect child anxiety treatment is still unknown (Berman et al., 2000; Breinholst et al, 2012; Ginsburg & Schlossberg, 2000; Victor, Bernat, Bernstein, & Layne, 2007). In examinations which take a "top down" perspective in analyzing child anxiety, children are found more likely to suffer from anxiety disorders when their parents also suffer from anxiety disorders (Bayer et al, 2006; Beidel & Turner, 1997; Bernstein, Layne, Egan, & Nelson, 2005; Biederman et al., 2001; Bögels & Phares, 2008; Drake & Kearney, 2008; Fisak & Grill-Taquechel, 2007; Francis & Chorpita, 2011; Manassis & Hood, 1998; Merikangas, Avenevoli, Dierker, & Grillon, 1999; Ollendick & Horsch, 2007; Turner, Beidel, & Costello, 1987; Warner, Mufson, & Weissman, 1995). One of the most common theories linking parent anxiety and child anxiety suggests that a parent's anxious behaviors may model and reinforce anxious behaviors in the child (Breinholst et al., 2012). In this theory, the child is exposed consistently and regularly to anxious parental behavior and thinking patterns, thus affecting their own anxious cognitive processes and behaviors.

Regarding the influence of parent anxiety on child anxiety treatment, in a 2014 study investigating 488 youths (ages 7-17) across four intervention groups (CBT-only, medication , their combination, and pill placebo), Gonzalez and colleagues found that parental anxiety was not associated with youth's pre-treatment anxiety symptom severity. Interestingly, parental anxiety influenced youth anxiety symptom trajectory through treatment only within the medication condition, such that higher levels of parental anxiety predicted a faster and greater reduction in youth anxiety in the medication-only condition. Furthermore, Victor et al. (2007) found parental psychopathology not to be associated with treatment outcome.

Socioeconomic status. Family socioeconomic status (SES) has been found to be related to the probability that a child may have an anxiety disorder. Beidel and Turner (1997) found among 129 children with a broad range of SES (35% high SES, 31% middle SES, and 34% low SES) that those with lower SES scores more commonly had children with depression only or with both depression and anxiety. These researchers

suggested that “high risk” for the development of clinical anxiety in children may more likely be a combination of low SES and the presence of parental psychopathology. Unfortunately, research to date have sampled primarily mid to high SES ranges, thus conclusions remain difficult regarding the association between SES and the development of anxiety in children (e.g., see Keeton et al, 2013).

Gender. Research has consistently found that girls experience higher levels of anxiety than boys (Silverman & Carter, 2006). Generally, these findings are consistent with research investigating youth self-reports of fear, which find that girls report more fears than boys (Ginsburg & Silverman, 2000; Ollendick, Matson, & Helsel, 1985; Ollendick, King, & Frary, 1989; Ollendick, Langley, Jones, & Kephart, 2001). The extent to which girls actually experience heightened fear and anxiety compared boys is unknown, as the primary difference may be based more on gender stereotypical behaviors with boys less likely to report the experience of fear. Still, twin studies propose a possible genetic basis for the sex difference (Eley, 2001), highlighting the importance of considering epigenetics, or the shaping of gene expression caused by anything outside changes to the DNA sequence, when assigning trait differences to the sexes. Early pubertal development and self-reported gender role orientation have been found to be more significant contributions to investigations of youth anxiety symptom levels than examining observed sex differences (Carter, Silverman, & Jaccard, 2011).

Ethnicity. Cultural and ethnic differences may have an impact on both the expression of anxious symptoms and in the assessment of anxiety in children (Cooley & Boyce, 2004), although little is known regarding the mechanisms underlying these cultural and ethnic differences. Hence investigating the differences both between and within racial and ethnic groups is crucial. Research thus far has found that Latino children and African American children appear to present differently from Caucasian children, with Latino children reporting higher levels of internalizing symptoms and African American children reporting significantly lower social anxiety levels than Caucasian children (Angold, Egger, Erkanli, & Keeler, 2005; Pina, Little, Wynne, & Beidel, 2014; Varela, Hensley-Maloney, 2009; Varela et al., 2004). However, most of the

research investigating childhood anxiety has examined primarily high-SES and Caucasian samples (Hunter & Schmidt, 2010; Neal & Turner, 1991). Thus, many researchers call for more diverse and larger samples in order to properly assess these potential ethnic and cultural differences.

Marital relationship. Researchers have linked the relationship between marital conflict, separation, interparental violence, and divorce and internalizing disorders and symptoms in children, however the research has been called limited and contradictory (Drake & Ginsburg, 2012). High levels of interparental conflict have been associated with higher levels of child anxiety symptoms (Bögels & Brechman-Toussaint, 2006; Cummings, 1994; Cummings, Goeke-Morey, & Papp, 2003; Tanaka, Raishevich, & Scarpa, 2010). For families with separated or divorced parents, which can serve as extensions of marital conflict, negative co-parenting has been associated with higher symptoms of child anxiety (Jekielek, 1998; Katz & Low, 2004; McHale & Rasmussen, 1998). Additionally, in a 1998 study using data from the National Longitudinal Survey of Youth, Jekielek found that children remaining in high conflict environments generally exhibit lower levels of well-being than children who experienced high levels of parental conflict but whose parents divorced or separated. Thus, children exposed to high levels of conflict in the home environment may be at higher risk for developing anxiety, with still higher risk for those children whose parents are not divorced or separated.

FAMILY FUNCTIONING

Among family factors investigated relating to anxiety, researchers have called for more consistent and appropriately operationalized constructs along with the use of more reliable measurement techniques (Breinholst et al., 2012; Drake & Ginsburg, 2012; Steinhauer, 1987). Steinhauer (1987) stated:

> Models are needed that combine and integrate the major parameters of universal family functioning with other social and intrapsychic influences, to serve as a basis for assessment procedures, therapeutic interventions, and continuing research, especially into the efficacy of various forms of intervention. (p. 82)

In order to fully understand how treatment contributes to therapeutic change, Kazdin (1999) also called for more basis in theoretical foundations when conducting empirical research regarding child and adolescent psychotherapy treatments. Kazdin (1999) proposed that theory should guide therapy research and hypotheses about the mechanisms and moderators of change. This section will discuss the primary theory used to develop the Family Assessment Measure (FAM), the measure proposed in this study to measure family functioning in families with children diagnosed with anxiety disorders. The Process Model of Family Functioning (PMFF) developed from the McMaster Model of Family Functioning (MMFF), of which a brief description will follow. Both of these theoretical models derive from a family systems perspective, which define family functioning as a family's ability to achieve family goals via basic and supportive interactional patterns (Walsh, 2011). The minor constructs of the PMFF model, which will be discussed briefly below, include task accomplishment, role performance, communication, affective involvement, control, and values and norms.

The McMaster Model of Family Functioning

Epstein, Bishop, and Levin (1978) first described the MMFF, which was further developed later into the PMFF. The MMFF views families as open systems comprised of various subsystems which relate to larger systems which surround the family (Carlson, 2003; Epstein, Ryan, Bishop, Miller, & Keitner, 2003) and equates health with normality (Steinhauer, 1987). The MMFF offers six dimensions of family functioning: problem-solving, communication, roles, affective responsiveness, affective involvement, and behavior control. The primary measure based on the MMFF, the Family Assessment Device (FAD), has been used in several studies (Carlson, 2003). Skinner et al. (1983) later developed the PMFF in order to create a more "process-oriented and dynamic model" (p. 77) from which to assess the family system and develop appropriate treatments (see also Skinner, Steinhauer, & Sitarenios, 2000, Steinhauer, 1987, and Steinhauer, Santa-Barbara, & Skinner,1984). Both the MMFF and the PMFF were derived from the Family Categories Schema (Epstein, Rakoff, & Sigal, 1968), and each

model was built with the aim of improvement upon the latter. The MMFF has been criticized by Steinhauer (1987) as downplaying social influences on the family and failing to consider the effects on the family of individual biology and psychopathology.

The Process Model of Family Functioning

The PMFF was developed to enhance the MMFF with six primary aims: (1) to clearly delineate the distinction between family treatment and the description of family functioning such that each is better understood; (2) to allow for integration of up-to-date research and clinical findings; (3) to offer a process-oriented conceptual framework through defined universal dimensions of family functioning and descriptions how those dimensions interact; (4) to encourage the integration of theories, including systems, psychoanalytic, social learning, and attachment theories of development and psychopathology; (5) to be more compatible with other models of family and individual psychopathology; and (6) to encourage the progression and development of new theories of the structure and processes of family functioning. The PMFF seeks to describe and assess families from both a pathological as well as a wellness or functioning perspective, thus determining strengths in addition to weaknesses in the family structure (Steinhauer et al, 1984). The PMFF integrates seven basic constructs, described below, all of which seek to describe the family process, an aim beyond that of the Family Categories Schema or the MMFF (Figure 1; Steinhauer, 1987; Steinhauer et al., 1984).

Dimensions of Family Functioning in the PMFF

The PMFF identifies seven dimensions of family functioning developed as modeling the universal goals of the family system which provide for the biological, psychological, and social development and maintenance of all family members (Skinner et al., 2000; Steinhauer et al., 1983; Steinhauer et al., 1984). The seven constructs that contribute to the PMFF are: Task accomplishment, role performance, communication, affective involvement, control, and values and norms. The Family Assessment Measure assesses these constructs and develops a description of the process and structure of the family's functioning. Although each individual construct in the PMFF model has not

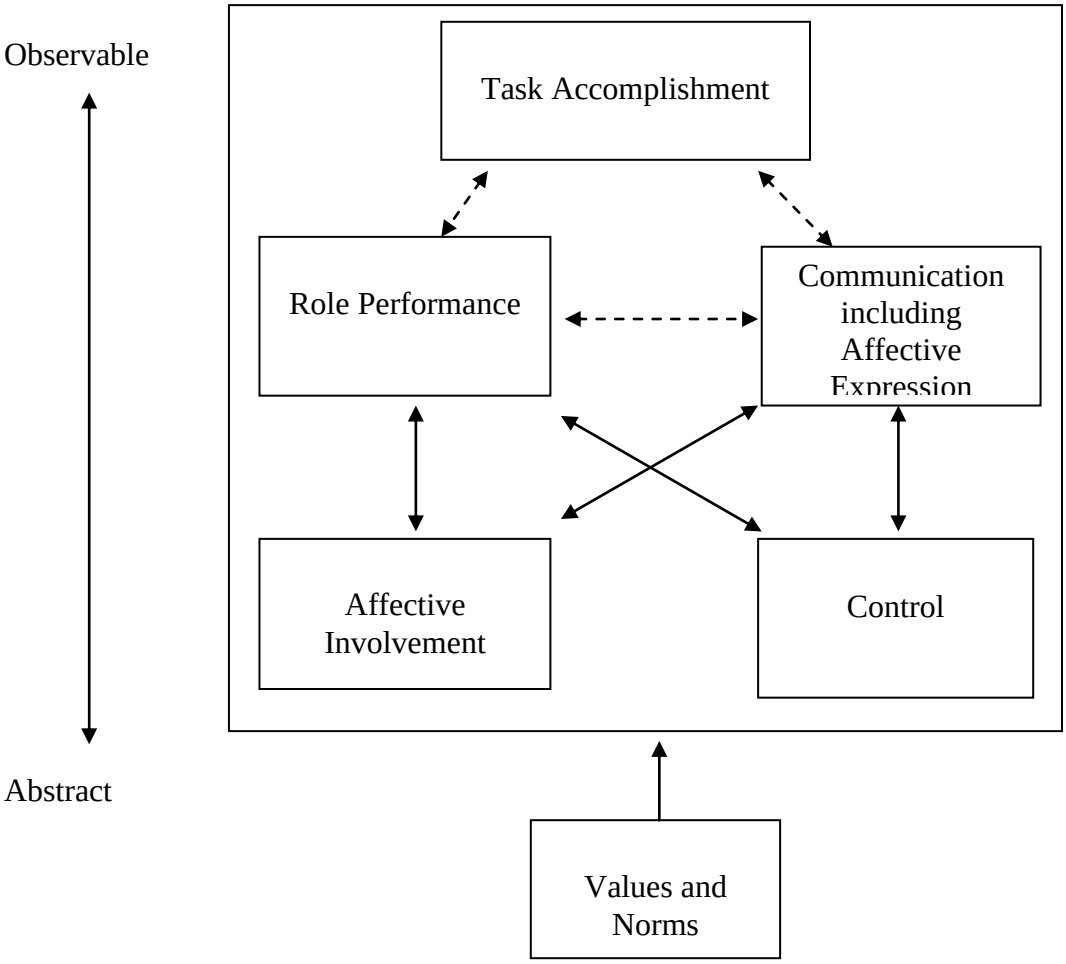


Figure 1. The Process Model of Family Functioning.

been found in research to predict overall family functioning on their own, limited research has shown that all seven dimensions taken together best describe the overall function of a family (Crawford & Manassis, 2001; Keeton et al., 2003; Jongerden & Bögels, 2014).

Figure 1, seen above, shows an overview of the basic PMFF model. The main parameters of family functioning are shown to all be constantly influenced by the family's values and norms. Task accomplishment serves as the superordinate goal of family functioning, with successful role performance needed to accomplish those tasks. To effectively fulfill one's role in the family, communication, including communication

of feelings, can help or hinder (through its absence) effective role performance or task accomplishment. Family members' ways of influencing one another (control) and affective involvements can also help or hinder task accomplishment. The dashed arrows indicate a more direct relation to task accomplishment than those functions connected via solid arrows. The arrow to the left of the diagram refers to the level of abstraction or observability of the parameters of the model. For example, one could observe more easily the communication occurring between family members, however the values and norms influencing the family are inferred (Steinhauer, 1987). A brief description of each dimension now follows.

Task Accomplishment. Families attain (or fail to achieve) objectives central to their maintenance and health through a variety of basic, developmental, and crisis tasks known here as task accomplishment (Steinhauer, 1987). Some of the primary tasks described by the PMFF crucial to the family are the progressive development of the family members, appropriate security, ensuring cohesion, and effectively functioning within society. Families accomplish tasks through problem solving, implementation of alternative solutions, and the evaluation of the effects of the problem solving process (Skinner et al., 2000; Steinhauer, 1987). When a family successfully accomplishes tasks and goals, they can work comfortably and effectively within society (Leavitt, 1951; Skinner et al., 2000; Tallman, 1970).

Role Performance. Appropriate differentiation and performance of various roles within the family helps the family successfully to achieve task accomplishment. Role performance includes the distribution of specific activities to each family member and a willingness of family members to act within and carry out those roles (Skinner et al., 2000). The roles to family members may be traditional and related to the goals of the family or idiosyncratic and unrelated to tasks (and thus, maladaptive). These roles shift and adjust as the family members age and as relationships develop within the family and extrafamilial roles increase (Steinhauer, 1987). Additionally, an appropriate and functional role definition for a family member allows for enough flexibility to respect

individual family members' needs and accommodate to change within and outside of the family system (Steinhauer, 1987).

Communication. In order for a family to appropriately understand and enact the roles assigned to them through the family system, the process of communication must be clear and direct (Alexander, 1973; Epstein, Rakoff, & Sigal, 1962). The goal for effective communication is the successful transmission of information and affective messages to other members of the family (Steinhauer, 1987). When a transmission is successful, it results in a mutual understanding between family members (Steinhauer, 1987). Critical to the accurate reception of communications necessitate the availability and openness of the receiver to the message (Skinner et al., 2000). Regarding affective expression, which consists as an essential aspect of the communication dimension, the content, timing and intensity of feelings involved are included. Thus, when a family experiences significant stress or individual pathology, affective communication can become blocked or distorted (Skinner et al., 2000; Steinhauer, 1987).

Affective Involvement. The degree and quality to which a family member holds interest in and concerns themselves with other members of the family can also help or hinder task accomplishment. Affective involvement includes the ability for family members to meet the emotional and security needs of each other. Additionally, the family system requires flexibility in affective involvement in order appropriately to adjust to and support family members' autonomy. The PMFF model describes five types of affective involvement reflecting various levels of degree and quality: the uninvolved family, a family not interested in expressing feelings, the narcissistic family, an emphatic family, and the enmeshed familiy (Skinner et al., 2000; Steinhauer, 1987).

Control. The extent to which family members influence each other's behavior best describes this dimension of family functioning (Spiegel, 1957; Steinhauer, 1987; Tharp, 1965). A balance is required in this domain, such that a family member should be able to work within their roles as well as maintain and adapt to shifting functions and task demands happening within and outside of the family (Skinner et al., 2000). Control in this model includes the role of individual responsibility and is not understood solely as an

interpersonal phenomenon (Steinhauer, 1987). The PMFF model outlines four types of control styles that vary in terms of predictability and constructiveness: rigid, flexible, laissez-faire, and chaotic.

Values and Norms. Every domain of family functioning described above reflects the family's values and norms. The parents' families of origin, the family's cultural background and context, and subgroups to which the family belongs all influence the family members' defined roles, communication, affective involvement, and control style (Boszormenyi-Nagy & Ulrich, 1981; Steinhauer, 1987). The values to which the family aspires constitute that family's ideals which then develop into rules and become understood as norms within the family. These norms include the minimal standards to which behaviors are accepted within the family (Steinhauer, 1987). Whether the values and norms for each family member are consonant with each other and whether the implied and explicit rules within the family work together can affect the family's ability to accomplish their goals. Additionally, latitude, or the allowance of individuals within the family to determine their own personal value systems, must persist in order to allow for individual autonomy (Steinhauer, 1987).

The Family Assessment Measure (FAM)

The PMFF was "specifically designed to assist in the integration of family systems theory with the major psychological theories of psychopathogenesis; psychopathology and psychotherapy, including psychoanalysis; attachment theory; social learning theory; various developmental theories; crisis theory; and cognitive behavior therapy" (Steinhauer, 1987, p. 68). The most recent edition of the FAM, the FAM-III (Skinner et al., 2000), is a self-report measure designed to distinguish the strengths and weaknesses of the family system with the complex and delineated integration of domains and theories considered in the PMFF model. For a more detailed description of the FAM-III, see Measures below in the Method section of this document.

Family Functioning Among Families of Children with Anxiety Disorders

For families of children with anxiety disorders, research remains unclear regarding the role and influence of family functioning, however, family functioning has been associated to some extent with child anxiety. In a 2003 study examining children who experienced an earthquake in Turkey, children reported more state and trait anxiety who also reported dysfunctional family functioning (Kiliç, Özgüven, & Sayil, 2003). In a review of literature regarding family functioning and child anxiety, Bögels and Brechman-Toussaint (2006) argued that a lack of evidence still exists for whether poor family functioning is indicative of child anxiety specifically or for child psychopathology generally. They pointed to a lack of longitudinal studies, though it should be noted that the studies reviewed in their paper appear to lack a consistent definition of the construct of family functioning. In general, across studies findings are inconsistent regarding the relation of anxiety to family factors and the magnitude of these associations is unclear (Drake & Ginsburg, 2012).

Crawford and Manassis (2001) used the FAM-III to measure family functioning and child anxiety treatment outcome, among other constructs. In this study, 61 children ages 8-12 with diagnosed anxiety disorders completed measures before and after treatment. Overall family functioning was shown to predict treatment outcome. More specifically, child ratings of family dysfunction were shown related to less favorable clinician-rated treatment outcomes in children with anxiety. These results suggest that family functioning may be involved in the development and maintenance of child anxiety. Further, poor family functioning may hinder a child's response to intervention.

INTERVENTIONS WITH PARENTAL FAMILIAL INVOLVEMENT

Though their interpretations and particular structure may vary within these forms, treatment for child and adolescent anxiety can take primarily two forms: child-only CBT and child-focused interventions that aim to involve parents and family (Aydin, in press; Barmish & Kendall, 2005). Because researchers have established a relation between family factors and the presence of anxiety in youth, many argue that parents should be included in treatments for children and adolescents with internalizing disorders

(Eckshtain & Gaynor, 2013; Podell & Kendall, 2011). Results, however, as analyzed through literature reviews, have remained inconsistent and inconclusive as to whether including parents into CBT treatment for children provides greater gain for the child (Breinholst et al., 2012). Breinholst et al. (2012) noted in their review that there is too much variation in how many and which parental factors are targeted as well as too much variability in how parents are involved in the treatment.

Barmish and Kendall (2005) have suggested that effective parental involvement in anxiety treatment for children necessitates a consideration of the child's age, principal diagnosis, and parental psychopathology. Barmish and Kendall (2005) suggested that the effects of having parents involved would be best examined longitudinally, in order to assess long-term effects for children and families.

DIRECTIONAL INFLUENCE OF CHILD ANXIETY AND FAMILY FUNCTIONING

Although a relation has been found between family functioning and child anxiety, the primary direction of influence, that is, whether family functioning influences child anxiety or if child anxiety begets certain family functioning, remains a question (Jongerden & Bögels, 2014). The most recent studies regarding direction of influence between family functioning and child anxiety disagree in their results. Keeton et al. (2013) support a bidirectional relation between family factors and child anxiety, arguing that spillover effects of child anxiety treatment improve family functioning. The results from this study derive from the Child/Adolescent Anxiety Multimodal Study (CAMS, see above; Walkup et al., 2008). Keeton et al. (2013) argued that even a small change in child anxiety related to family benefits. Silverman et al. (2009) supported these results, however, Wijsboek et al. (2011) showed from their study a clear unidirectional effect from child to parents. This study, however, examined only adolescents and self-reports.

Overall, negative family functioning appears to be related to children with anxiety (Hughes et al., 2008; Jongerden & Bögels, 2014), although family CBT does not appear to be more successful in reducing anxiety-enhancing parenting and family functioning than child-only CBT (Crawford & Manassis, 2001; Esbjorn et al., 2014; Jongerden &

Bögels, 2014; Keeton, 2013; Settipani, 2013). Additionally, Settipani et al. (2013) note that parents may personally benefit from treatment whether or not the child improves in severity of anxiety symptoms, although high maternal anxiety may impede child treatment. Thus, it is possible that the family functioning of a family of a child with anxiety may improve from a treatment aimed at the child's anxiety symptoms (Keeton et al, 2013).

Hughes, Hedtke, and Kendall (2008) argued that parental psychopathology is associated with worse child outcomes and family functioning such that a low score of family functioning as measured on the Family Assessment Device correlated with higher anxiety in children (Epstein, Baldwin, & Bishop, 1983). This study strengthens the results from Crawford and Manassis (2001), which proposed that family dysfunction related to less favorable treatment outcomes in children with anxiety.

SUMMARY

An examination of the literature relating to the relation between family functioning and child anxiety yields mixed results. From traditional family systems theory and from past studies analyzing family factors and child anxiety, a connection beyond genetic influence is clear, however from research on child anxiety, what family variables are most effectively targeted in treatment or which have the most influence on child anxiety treatment outcome remains unclear. Most studies have been inconsistent regarding which family factors are examined, and a call has been made regarding a need for more studies investigating specific family variables. Although family functioning specifically has been shown to be associated with child anxiety to some degree, studies have been inconsistent in terms of informant, measurement technology, child and parent characteristics, and demographics, as well as a lack of consensus regarding definitions of key constructs. The PMFF, derived from the MMFF, offers a coherent and well-researched theory of family functioning from which to potentially investigate the family system in such a way that incorporates intrapsychic, interpersonal, and family systems

theories. Currently, questions remain in the field regarding the possible strength of influence and direction of the influence of family functioning and child anxiety.

Chapter 3: Proposed Research Study

PROBLEM STATEMENT

When anxiety becomes a challenge for children and adolescents, a healthy and fulfilling life becomes a difficult pursuit. Unfortunately, anxiety disorders are among the most common psychopathologies for children (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). These children may have increased risk for substantial psychosocial difficulties, such as poor academic performance, comorbid diagnoses, or impairment in social relationships (Messer & Beidel, 1994). The family system is the most immediate environment for the child, and the extent to which a child's anxiety affects the immediate family of a child with an anxiety disorder remains a question in the field of childhood anxiety disorders research. Furthermore, questions remain regarding how much the family might affect youth anxiety.

The relation between family functioning and youth anxiety has only recently been studied. Some studies suggest that youth anxiety precedes and amplifies poor family functioning (e.g., Wijsboek et al., 2011), while other studies suggest a bidirectional influence of both parent-to-child and child-to-parent (Keeton et al., 2013; Silverman et al., 2009). Additionally, some researchers have found that family functioning improves after child anxiety treatment with no difference if the parents are involved in treatment. There has been a call for more research investigating further the degree of association between family factors and child anxiety, specifically into whether family functioning may be affected by child anxiety and if adding a parent component to child anxiety treatment may affect family functioning (Crawford & Manassis, 2001; Drake & Ginsburg, 2012; Jongerden & Bögels, 2014; Keeton et al., 2013; Silverman et al., 2009). Furthermore, Drake & Ginsburg (2012) have called specifically for the need for consistently defined constructs paired with reliable measurement techniques in order to standardize the behaviors under investigation. This study will investigate the relation between family functioning and child anxiety during a cognitive behavior therapy (CBT) intervention for youth with anxiety and their families, including whether child anxiety level can predict family functioning levels post-treatment when controlling for pre-

treatment levels of anxiety and family functioning. The study will include analyses at multiple time points. Also assessed will be whether adding a parent component to CBT treatment for children with anxiety will help predict overall family functioning.

RESEARCH QUESTIONS AND HYPOTHESES

Research Question 1

Is there a relation between overall family functioning and severity of anxiety symptoms in youth in a CBT treatment program focused on the child?

Hypothesis 1

It is hypothesized that a substantial negative relation will exist between overall family functioning and child anxiety symptoms pre-treatment, meaning that children with higher levels of anxiety will be in families with lower levels of family functioning.

Rationale. Family variables have been found to be associated with child anxiety symptoms. Although the direction of influence is not clear, previous literature has shown a significant association between family functioning and the presence of anxiety in youth (Bögels & Brechman-Toussaint, 2006; Crawford & Manassis, 2001; Hughes et al., 2008; Jongerden & Bögels, 2014). Additionally, a primarily negative relationship has been found between family functioning and child anxiety symptoms (Bögels, 2004; Hughes et al., 2008; Katz & Low, 2004; Kilic, Ozguven, & Sayil, 2003), indicating that a low family functioning score may be associated with a high level of child anxiety.

Research Question 2

Does child anxiety level predict family functioning levels post-treatment when controlling for pre-treatment levels of anxiety and family functioning? At 6-month follow-up? At 1-year follow-up?

Hypothesis 2

It is hypothesized that child anxiety will predict family functioning at all three time points of post-treatment, 6-month follow-up, and 1-year follow-up.

Rationale. As mentioned above, family functioning and child anxiety have been shown to be related (Bögels & Brechman-Toussaint, 2006; Crawford & Manassis, 2001; Hughes et al., 2008; Jongerden & Bögels, 2014). However, most research to date has examined family functioning at primarily pre- and post-treatment time points, showing primarily that family dysfunction relates to higher child anxiety (Crawford & Manassis, 2001; Hughes et al., 2008; Jongerden & Bögels, 2014). Keeton et al. (2013) found that an improvement in child anxiety led to an improvement in family functioning even when the family was not targeted in the intervention, suggesting that child anxiety may directly influence family functioning.

Research Question 3

Does adding a parent training/no parent training variable improve prediction of overall family functioning above and beyond other variables?

Hypothesis 3

It is hypothesized that adding a parent training/no parent training variable to the regression will not predict overall family functioning such that the relation between child anxiety and family functioning will remain consistent despite whether the child is receiving child-only treatment or treatment with a family component.

Rationale. While the research remains unclear regarding whether adding a parent component to the treatment of childhood anxiety disorders results in improved treatment, research has shown thus far that family functioning appears to improve regardless of whether the child receives child-only CBT or CBT with a family component (Jongerden & Bögels ; Keeton et al., 2013; Settipani et al., 2013). In the most recent study comparing child-only CBT with a family CBT treatment for children with anxiety, Jongerden and Bögels (2014) found that family functioning improved for both treatment groups regardless of condition. Keeton et al. (2013) found in the CAMS study "spillover" effects of CBT on family functioning for each treatment group compared of placebo, medication (Setraline), CBT treatment, and their combination, again regardless of treatment condition. Additionally, when considering family systems theory and the PMFF

specifically, a shift in child anxiety (as a component of the larger family system) will affect the overall family functioning whether or not the child only or the parents are involved in the child's treatment. Despite the incorporation of a parent component that directly addresses family factors associated with family functioning (e.g., communication, collaboration) and trains the parents extensively on managing the child's anxiety symptoms beyond the 12 sessions of therapy, I hypothesize that family functioning will improve along with improvements in child anxiety severity and regardless of treatment group.

METHOD

Participants

The proposed study will recruit 150 youth and parent participants (75 dyads), with children ages 10-17 years old, as determined by an a priori power analysis (alpha = .05; beta = 0.8 (medium effect size)) and taking into account possible drop-out. Participation in the study will be determined by a semi-structured interview at intake, the Anxiety Disorders Interview Schedule (ADIS) for DSM-IV (see measures section below), which will assess the presence of an anxiety disorder. Both the child and primary parent will be interviewed separately. To be eligible for the study, the child must obtain an ADIS Clinical Severity Rating (CSR) of at least a 4, based on the clinician's rating from the parent and child interviews. Youth must meet a primary diagnosis of Generalized Anxiety Disorder (GAD), Separation Anxiety Disorder (SAD), or Social Phobia (SoP). Youth will be excluded if they meet criteria for any of the following: Bipolar Disorder, Major Depressive Disorder, Pervasive Developmental Disorder, Psychotic Disorder, Uncontrolled ADHD (combined or primarily hyperactive type), Eating Disorders, Substance Use Disorders, or any other Axis I disorder with a clinical rating greater than or equal to the rating of the disorder(s) of interest (SAD, GAD, or SoP). Additionally, if youth have school refusal behavior characterized by missing more than 25% of school days in the most recent term or if the youth or parents cannot speak or read and write English, they will be ineligible for the study. If a child receives medication for his or her

anxiety, he or she must be taking the medication for at least one month prior to the start of the intervention. The investigator will note and record changes in medication throughout the intervention. Children and their parents will be assessed at pre-treatment, post-treatment (approximately 12 weeks later), 6-month follow-up, and 1-year follow-up.

Measures

For this study, family functioning, child anxiety levels, and parent anxiety levels will be assessed on four occasions: baseline, post-intervention, 6-month follow-up, and 1-year follow-up. The researcher chose the following measures due to their strong psychometric properties and their use in similar studies.

Participant Demographics

Demographic form. Parents will fill out an intake information form that includes family information (parents' marital status, general family income, individuals living in the home, family mental health history), school information (grade, specific disabilities and/or school services), previous evaluations and treatments, medical and drug treatment history, developmental history, and medical history. A draft version of the demographic form is included in Appendix A.

Initial Screening

Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher, Khetarpal, Cully, Brent, &McKenzie, 1997). The SCARED is a 41-item child and parent self-report measure that screens for childhood anxiety disorders including GAD, SAD, Panic Disorder, and SoP. Respondents report severity of anxiety symptoms for the past three months on a 0-2 point scale (0 = never true, 1 = sometimes true, 2 = often true). For the total score and each of the five factors (GAD, SAD, Panic Disorder, SoP, and School Refusal), both the child and parent SCARED demonstrated good internal consistency (alpha = .74 to .93), test-retest reliability (intra-class correlation coefficients = .70 to .90), and discriminative validity (both between anxiety and other disorders and within anxiety disorders), and moderate parent-child agreement ($r = .20$ to .47, $p < .001$, all correlations)

in a sample of 341 outpatient children and adolescents and 300 parents (Birmhaher et al., 1997).

This study will involve only the parent report version (administered at pre-treatment in a phone interview with a graduate research assistant) in order to screen for initial eligibility.

Anxiety Disorders Interview Schedule for DSM-IV: Child Version and Parent Version (ADIS for DSM-IV; C and P; Silverman & Albano, 1996). The ADIS-C/P is a semistructured interview that assesses Diagnostic and Statistical Manual of Mental Disorders (4th ed. [DSM-IV]; American Psychiatric Association, 1994) anxiety disorders in youth. Additional sections include evaluations for mood and externalizing disorders, which allow for evaluation of comorbid conditions. Studies indicate favorable psychometrics (March & Albano, 1998), including high interrater reliability (kappa = .92; Lyneham, Abbott, & Rapee, 2007), retest reliability (Silverman, Saavedra, & Pina, 2001), and convergent validity (Wood, Piacentini, Bergman, McCracken, & Barrios, 2002).

The ADIS for DSM: C and P will be conducted for all potential participants prior to inclusion in the study. Only those participants who meet criteria for a primary diagnosis of GAD, SAD, or SoP will be included.

Child Anxiety Severity.

Multidimensional Anxiety Scale for Children (MASC; March, 1997). The full measures MASC is a 39-item scale that yields a total of 13 scores including the Total Anxiety Scale Score, which is divided into the following four subscales: Physical Symptoms (consisting of Tense and Somatic subscales), Harm Avoidance (consisting of the Perfectionism and Anxious Coping subscales), Social Anxiety (consisting of the Humiliation Fears and Performance Fears subscales), and Separation/Panic. It also provides and Anxiety Disorders Index and a validity scale. The MASC is normed for children ages 8-19. It has shown satisfactory to excellent reliability in two separate school-based (grades 4-12) population studies (March, Parker, Sullivan, Stallings, &

Conners, 1997; March, Sullivan, & Parker, 1999) and adequate validity (March et al., 1997).

Youth participants will fill out the MASC at baseline, post-intervention, 6-month follow-up, and 1-year follow-up.

Parent anxiety.

State Trait Anxiety Inventory for Adults (STAI; Spielberger, Gorsuch & Lushene, 1970). The STAI is a self-report measure that consists of 40 questions which assess anxiety symptoms in adults. According to studies by Speilberger et al. (1970), test-retest correlations were calculated to show high reliability (alpha coefficients from .83 to .92) and validity (coefficients range from .52 to .80)

Parents will fill out this measure to assess their own general anxiety symptoms at baseline, post-intervention, 6-month follow-up, and 1-year follow-up.

Family functioning.

Family Assessment Measure III (FAM-III; Skinner, Steinhauer, & Santa-Barbara, 1995). The FAM-III is a 50-item child- and parent-reported measure of overall family functioning that asks about the family environment as a whole. Family functioning is assessed across seven subscales: task accomplishment, role performance, communication, affective expression, involvement, control, and values and norms. Items are summed to yield a total score, which is converted into a T score. Skinner, Steinhauer, & Sitarenios (2000) report strong reliability, with alpha coefficients of .89 for adults and .86 for children. Skinner, Steinhauer, & Santa-Barbara (1983) report good internal consistency, with alpha coefficients of .93 for overall score and .73 for subscales median.

The primary caregiver and the child will complete the FAM-III about general family functioning at baseline, post-intervention, 6-month follow-up, and 1-year follow-up.

Procedure.

Recruitment

Male and female youth age 10-17 and at least one parent or guardian for each youth participant will be recruited for this study. The study will aim to involve families that represent a diverse range of ethnic and cultural backgrounds. Participants will be referred to the Texas Child Study Center for anxiety treatment by physicians and mental health professionals. Additionally, flyers and tables at community mental health fairs that promote the study will allow for a broader participant pool. Parents will be given a contact phone number to express their interest in the study and take a preliminary phone intake interview, the Screen for Child Anxiety Related Disorders (SCARED; see measures section above). This phone interview will determine the presence of anxious symptoms. If symptoms appear to be present, an intake interview (ADIS for DSM-IV:C/P) will be scheduled. At this interview, the parent will complete an intake demographic form and both parent and child will complete a consent and assent for the intake interview. If the ADIS:C/P determines an initial diagnosis in the child of either GAD, SoP, or SAD and rules out exclusionary criteria, the participants will be asked for informed consent and assent to participate in the study. During the consent process, participants will be informed of the study, IRB approval, risks and benefits, as well as the limits of confidentiality.

Data-collection

The ADIS:C/P and SCARED interviews will be administered as a screening device in order to assess study eligibility (see exclusionary criteria above). Pre-intervention data (MASC, STAI, FAM-III) will be collected from youth and parent participants at a baseline session no more than one week prior to the initial treatment session. After the 12-week intervention, participants will complete post-intervention measures (MASC, STAI, and FAM-III). Additionally, at 6-month follow-up and then at 1-year follow-up, families will be asked to complete the MASC, STAI, and FAM-III (see

Table 1 below). Children and their parents will complete all measures regardless of study condition.

	At initial screening	Pre-treatment	Post-treatment	6-month Follow-Up	1-year Follow-Up
Demographic Form	X				
Anxiety Screening:					
SCARED	X				
ADIS:C/P		X			
Child Anxiety:					
MASC		X	X	X	X
Parent Anxiety:					
STAI		X	X	X	X
Family Functioning:					
FAM-III		X	X	X	X

Table 1. Measures used and when administered.

Intervention

Families will be randomized into two possible intervention conditions: CBT with the child only and CBT with a parent component. Both interventions will include 12 individual therapy sessions for the youth participants that will follow the Coping Cat manual (Kendall & Hedtke, 2006) used in the Child/Adolescent Anxiety Multimodal Study (CAMS; Compton et al., 2010). The Coping Cat treatment program provides

psychoeducation training (sessions 1-5) focused on normalization of anxiety, its bodily sensations, rating and rewarding, and coping and problem-solving skills, followed by practice of imaginary and in-vivo exposures in low anxiety, moderate-anxiety, and eventually high-anxiety (sessions 6-12). Similar to the CAMS, the Coping Cat Manual will be reduced from 20 to 12 sessions. Therapists in both conditions will adapt the standardized treatment for each child's age and developmental level, as suggested in the Coping Cat Manual. Therapists will be available to hold sessions during after school hours in order to accommodate for the school schedule.

CBT + Parent training condition. At least one parent or guardian will participate in a concurrent parent intervention program. This program will follow a new treatment protocol (Stark et al., in progress) that follows the structure of the Coping Cat program and focuses on psychoeducation about anxiety disorders, minimizing family accommodation behaviors, and forming hierarchies and planning exposures to extend treatment practice outside of the youth therapy sessions. The parent and child will each have their own therapist. Behavior plans, problem solving skills, and reward systems will be encouraged by the parent therapist along with consultation for the family as needed. Parents are asked to collaborate on their child's progress and, once trained, assist in conducting exposures for the child. Sessions will be held concurrently although sessions will be conducted primarily individually with group check-ins at the end of each session and a combined session with both parents and youth at sessions 9 and 12. Each session will last approximately 60 minutes. Forty-five to fifty minutes of the session will consist of the parent meeting one to one with the parent therapist and the child meeting one to one with the child therapist. The final 10-15 minutes will consist of a group meeting with parent and youth participants and both child and parent therapists.

CBT-only condition. The CBT-only condition will involve primarily the child and the child therapist. A parent therapist will not be assigned to the parent, and the child therapist will be the primary contact for parents or guardians. Each session will last approximately 60 minutes with a brief update with parents in the last 5 minutes of

session, as needed. The therapist will conduct two meetings with the parents as organized in the Coping Cat manual, at the end of sessions 3 and 5.

ANALYSES AND EXPECTED RESULTS

This study proposes to examine the relation of anxiety to family functioning in children and parents during a youth-focused CBT-based intervention for anxiety.

Preliminary Analyses

Prior to testing the research hypotheses, preliminary analyses such as descriptive statistics assessing the frequencies, means, standard deviations, ranges, and minimum and maximum values will be conducted to ensure that no assumptions have been violated, particularly that of normality, linearity, and homoscedasticity. Variables will be plotted and examined to ensure normality and sensitivity analyses will be conducted to consider outliers (Keith, 2006). Additionally, residuals will be plotted against each predictor and predicted value to test for linearity and homoscedasticity. Once preliminary analyses have shown that no statistical assumptions have been violated, investigation will continue to test the research questions.

A priori analysis using G*Power version 3.1.9.2 software established that 82 individuals will be necessary to achieve over 80% power and moderate effect size (.3) for the first research question. In other words, to find a critical t (80) = 1.99 at a .05 significance level (alpha), 41 dyad participants are necessary. To test the second hypothesis, 55 participants, or 27-28 dyads, are needed to result in a design with 80% power for moderate effect size. Significance level (alpha) for this test would be .05 with 80% power to detect a critical F(1, 48) = 4.043. For the overall study, 150 individuals, or 75 dyad participants, will be recruited, with approximately 50% of the child participants male and 50% female. This study will recruit more than the minimum of 123 participants in order to account for families who may drop out of the study before the end of treatment.

Tests of Research Questions

Pearson product-moment correlation will be used to address Research Question #1, and a linear multiple regression design will be used to evaluate Research Question #2 and #3.

Hypothesis 1

It is hypothesized that a negative relation will exist between overall family functioning and child anxiety symptoms. This hypothesis will be analyzed using Pearson product-moment correlations. Pearson product-moment correlations will be calculated for all dependent variables (family functioning [FAM-III], parent anxiety [STAI], SES, gender, ethnicity, and family composition) and the independent variable of child anxiety symptom severity (MASC-10) at pre-treatment. It is hypothesized that the child anxiety scores will explain a statistically significant amount of the variance in family functioning scores at pre-treatment, indicating a relation between family functioning and child anxiety both before and after the intervention.

Hypothesis 2

It is hypothesized that overall family functioning and child anxiety severity scores will continue to be related following treatment, and that anxiety levels will predict family functioning even after controlling for previous levels of family functioning and child anxiety. Such a finding would suggest the possibility that child anxiety affects family functioning over time. This hypothesis will be analyzed using three multiple regression analyses. The first regression will regress FAM-III scores at post-treatment (time 1) on child anxiety scores on the MASC-10 at pre-treatment time (time 0), controlling for family functioning at pre-treatment (time 0). The second regression will regress FAM-III scores at 6-month follow-up (time 2) on child anxiety scores at post-treatment (time 1), controlling for family functioning at post-treatment (time 1). Finally, a third regression will regress FAM-III scores at 1-year follow-up (time 3) on child anxiety scores at 6-month follow-up (time 2), controlling for family functioning scores at 6-month follow-up (time 2). SES, parent anxiety, and family composition will serve as control variables in

all analyses. I expect that results will show child anxiety to predict overall family functioning at each of these time points, such that a high child anxiety will predict low family functioning throughout treatment.

Hypothesis 3

It is hypothesized that adding a parent training/no parent training variable to the regression will not improve prediction of overall family functioning such that the relation between child anxiety and family functioning will remain consistent despite whether the child is receiving child-only treatment or treatment with a family component. This hypothesis will be analyzed using a multiple regression analyses similar to that described in hypothesis 2. In this testing, a parent training/no training dummy variable will be added to the regression to see if it has any effect on the prediction of family functioning even after controlling for previous levels of family functioning and child anxiety. SES, parent anxiety, and family composition will again serve as control variables.

Chapter 4: Conclusion

SUMMARY

This proposed study will determine if family functioning and child anxiety symptoms relate to one another during a CBT-based intervention for youth with anxiety and if child anxiety level can predict family functioning levels. Additionally, this proposal aims to investigate whether adding a parent component to the CBT-based intervention will help predict overall family functioning. Participants in the study will include 75 youth and parent dyads. Youth participants ages 10-17 with a primary diagnosis of Generalized Anxiety Disorder, Separation Anxiety Disorder, and/or Social Phobia will be included. These three disorders call for similar treatment and are considered the three most common anxiety disorders. Self-report questionnaires of anxiety symptoms and family functioning will be completed at 4 time points during and after the anxiety intervention, at pre-treatment (time 0), post-treatment (time 1), 6-month follow-up (time 2), and 1-year follow-up (time 3).

I expect that children with higher levels of anxiety will be more likely to be from homes with lower levels of family functioning and that family functioning will predict child anxiety symptoms over time. These predictions align with the previous research reviewed in the above integrative analysis, which have established a relation between family functioning and child anxiety (Bögels & Brechman-Toussaint, 2006; Crawford & Manassis, 2001; Hughes et al., 2008; Jongerden & Bögels, 2014). More specifically, family dysfunction appears to correlate with higher child anxiety symptoms (Bögels, 2004; Hughes et al., 2008; Katz & Low, 2004; Kilic, Ozguven, & Sayil, 2003). Furthermore, it is hypothesized that adding a parent training/no training variable to the regression will not improve overall family functioning. While the parent training component will address family functioning variables such as communication, previous research suggests that the overall family functioning may improve despite treatment condition (Jongerden & Bögels; Keeton et al., 2013; Settipani et al., 2013). As with any empirical study, the results of this proposed investigation should be taken into consideration along with its limitations and interpreted with caution.

LIMITATIONS

While the FAM-III measure of family functioning takes into account every member of the family's perception of functioning, it nonetheless considers only those perspectives from within the family unit, and thus remains a self-report as no outside assessment is considered. One significant limitation to this study is the use of self-report measures only in the consideration of both family functioning and child anxiety. Although the measures are recognized as valid and reliable, self-reports in general are problematic due to social desirability bias (Wood, McLeod, Sigman, Hwang, & Chu, 2003). Similar studies in the future should use measures from additional resources, such as therapist or study examiner ratings, to strengthen results.

Another limitation to this proposed study is in regards to generalizability. If the study participant pool consists of a homogeneous sample, the external validity of the results would be impaired. Though the study will aim to recruit from community samples exhibiting a diverse range of the population, it remains a possibility that the sample is limited thus affecting ability to generalize the results. Furthermore, parents recruited and involved in the study may be limited to mothers only, thus limiting the generalizability to children and their mothers. Fathers have been shown to be less likely to attend treatment sessions (e.g., Cobham et al, 1998; Thienemann et al., 2006). Additionally, Headman and Cornille (2008) suggested that families more likely to engage in treatment services are those with lower average FAM-III problem denial scores and with younger youth. Thus, it may occur that those families with a higher likelihood of denying their family challenges and with older children will drop out of services. Therapists in this study will provide, in turn, a thorough orientation for families in either component regarding the importance of honesty in the measures as well as confidentiality and a normalization of family problems so as to provide families with reassurance regarding their buy-in and completing of the program. Finally, this study will serve only those families who seek treatment for their child's anxiety, thus generalizability will be limited to these families only, missing the segment of the population that does not typically seek treatment. Future

research should investigate alternative methods for reaching and treating these families successfully.

An additional limitation for this proposed study lies in the statistical method presented to analyze its research questions. This study offers regression analyses at various time points in order to address the second and third research questions. Future studies should employ structural equation modeling to more adequately assess the impact over time of child anxiety on family functioning over the course of treatment.

IMPLICATIONS

Despite the above limitations, this study provides an important move toward understanding this area of research and helping to improve the efficiency of treatment for children with anxiety. Results from this study will offer an analysis using sound measurements based on a strong and multivaried theoretical foundation. This study considers the importance of assessing the family context and offers further investigation as to whether combining family and individual therapy may provide more positive results for children and their families (e.g., Steinhauer & Tisdall, 1984). If no relation is found between family functioning and child anxiety, it may be necessary to investigate further the individual constructs within the FAM-III measure in order to assess whether particular constructs (e.g., communication) relate to child anxiety. In contrast, if evidence suggests a relation between family functioning and child anxiety, further studies should further analyze the direction of this effect with stronger statistical models as well as assess the individual constructs within the PMFF theoretical model. Results may assist in the determination of including parents in the treatment of youth anxiety. If family functioning is shown to improve despite child anxiety improvement over the course of treatment, further studies should consider further areas of family functioning affected by child anxiety and child treatment procedures. Including the family in treatment may be the best option for families when considering treatment alternatives for their children with anxiety disorders. This proposed study will add to the literature on the nature of the likely relation between family variables and child anxiety. With vulnerable populations in

particular, future studies should discern whether it may be more helpful to have the family incorporated in treatment. Finally, this study will provide information for those concerned with improving the evidence-based practice for the treatment of childhood anxiety disorders

Appendix A

Texas Child Study Center
PATIENT INFORMATION

Date_____

Patient Information

Name_____
Nickname:_____ DOB_____ Age_____ Sex___
Race/Ethnicity:_____
Language(s) spoken at home:_____
Person completing form:_____ Relationship to Child:_____
Child's
Address_____
City_____ State_____
Zip_____
Home Phone_____ Other (e.g. Child's Mobile):_____
Medical Doctor_____
Phone_____
Preferred
Pharmacy_____
Referred by_____
Phone_____

Caregiver Information (**Custodial**)

Name_____Age____
Sex___ Relationship to
Child:_____
Address if other than above_____
Work Phone _____Other
Phone_____
Please indicate if we may leave a message at home:_____ work:____ other:____
Employer_____Position_____
__

Caregiver Information (**Custodial**)

Name_____ Age____
Sex___ Relationship to
Child:_____
Address if other than above_____
Work Phone _____ Other
Phone_____
Please indicate if we may leave a message at home:_____ work:____ other:____
Employer_____Position_____
__

Caregiver Information (**Non-Custodial)**

Name_____ Age____
Sex___ Relationship to
Child:_____

Address_____
___ City_____ State_____
Zip_____
Home Phone_____ Work Phone _____ Other_____
Please indicate if we may leave a message at home:_____ work:____
other:___Employer_____Position_____
_____Biological parent___ Adoptive parent___ Foster parent___ Step-
parent___Other_____

In Case Of Emergency Notify:
Name_____ Relation_____
Phone_____ Other#_____

Please tell us what type(s) of services you are seeking:
___ Therapy (if so, what type:_____)
___ Evaluation (if so, what type:_____)
___ Medication

Briefly, please describe the concerns about your child and/or the reason you are seeking services (e.g, any behavioral, emotional, or learning concerns at home and/or school, difficulties with peer relationships, etc):

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Family Information

Parents' Marital Status: __Married __Never married __ Separated __ Divorced __Widowed
If separated or divorced, how long?_____

Contact with non-custodial parent or custody arrangement if any:_____

Household Yearly Income: __Less than $25,000 __$25,000 to $49,999 __$50,000 to $74,999 __$75,000 to $99,999
__$100,000 to $124,999 __$125,000 to $149,999 __$150,000 to $174,999
__$175,000 to $199,999 __$200,000 and above

Any special circumstances in the family situation?

_____

Please list all individuals living in the home:

Name	Age	Relationship	Occupation/School

School Information

Name of School:_____ School District:_____
Phone:_____
Main Teacher (or teacher who knows your child best):_____Current Grade:_____

Placement and Services (current or past)	**No**	**Yes**	**Describe (e.g. when, which subject failed or grade repeated)**
Early Intervention			
Repeated Grade			
Suspended			
Failed or is failing a grade or subject			
Received any special education services			

Please describe any current special education services (e.g. IEP, 504 Plan, resource room support):

_____
_____
_____
_____

_____
_____
_____
_____
_____
_____

Previous Evaluations and Treatments (please bring copies of any reports)
Testing (such as educational, emotional, speech/language)

Date	Type of Testing	Where was the testing done? (e,g, School, Private Psychologist, etc)	Result/Diagnosis/Outcome

Outpatient Mental Health Professionals Seen:

Professional's Name/Specialty (e.g. psychiatrist, psychologist, social worker, school counselor)	Start Date	End Date	Type of services received

Is there any history of physical or sexual abuse?

_____
_____
_____
_____
_____
_____
_____

Child Protective Services Report?

_____

If your child has taken medication for attention, behavior, or emotional problems, please list:

Medication	Dosage (e.g. 20 mg 3x day)	Start	End	Prescribed By	Adverse Effects

Please List ANY Drug or Food Allergies_____

If your child takes any other medication or supplements for any other reason, please list:

_____

_____

Psychiatric Hospitalization or Inpatient Drug Treatment

Place	Date Started	Date Stopped	Reason for admission

Has your child or family received services or case management through an agency (e.g. Child Protective Services, Department of Mental Health and Mental Retardation, etc.)?

Agency:_____

Service:_____

Agency:_____

Service:_____

Developmental/Health History

Pregnancy and Delivery

Age of mother at birth: _____ yrs

Medications taken during pregnancy: _____

Gestational diabetes? Yes No

Problems with blood pressure or toxemia? Yes No

Infections (including herpes) _____

Smoking (if so, how many packs per day) _____

Alcohol _____

Drugs taken _____

Any problems during labor or delivery: _____

Duration of pregnancy: _____weeks

Type of labor: _____

Birth weight: _____

Any problems after birth: _____

Infancy/Toddler

Describe your child as an infant and toddler:

_____

Problems with feeding	Y	N
Severe colic or excessive crying	Y	N
Irritable	Y	N
Overactive	Y	N
Easily overstimulated	Y	N
Withdrawn	Y	N
Didn't like to be held	Y	N
Difficult to soothe	Y	N

Developmental Milestones:

Indicate the age at which your child achieved the following:

Sit up _____
Crawl _____
Walk without assistance _____
Speak in 2 word sentences _____
Toilet trained during the day _____
Dry at night _____

Medical History

Major Illness	Date	Hospitalized?	Surgery?

Has your child ever had a head injury with loss of consciousness? If yes, please describe:

_____
_____

Has your child ever had a seizure? If yes, please describe:

_____
_____

Family History

Does anyone in the child' **biological** family have:	No	Yes	Relationship to child
Attention problems/ADHD			
Behavior problems in youth			
Learning Disability			

Seizures			
Mental Retardation			
Tics/Tourette's Syndrome			
Autistic spectrum disorder			
Thyroid Problems			
Heart Problems before age 50			
Depression			
Bipolar Disorder			
Anxiety or Panic Attacks			
Obsessive Compulsive Disorder			
Schizophrenia			
Alcohol Problems			
Drug Problems			
Trouble with the law			

Any other significant family medical or psychiatric history_____
_____
_____

Significant psychiatric, behavioral or medical problems in step-, adoptive, or foster family:_____
_____
_____
_____

Other Information

Please add any other information you feel may help us understand your child:_____
_____
_____
_____
_____

Appendix B

Participant Number: Session Number:
Date:

STAI

A number of statements which people have used to describe themselves are given on the following pages. Read each statement and then circle the appropriate answer to indicate how you feel ***right*** now, that is, ***at this moment***. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

1. **I feel calm** Not at all - Somewhat - Moderately so - Very much so
2. **I feel secure** Not at all - Somewhat - Moderately so - Very much so
3. **I am tense** Not at all - Somewhat - Moderately so - Very much so
4. **I feel strained** Not at all - Somewhat - Moderately so - Very much so
5. **I feel at ease** Not at all - Somewhat - Moderately so - Very much so
6. **I feel upset** Not at all - Somewhat - Moderately so - Very much so
7. **I am presently worrying over possible misfortunes**
   Not at all - Somewhat - Moderately so - Very much so
8. **I feel satisfied** Not at all - Somewhat - Moderately so - Very much so
9. **I feel frightened** Not at all - Somewhat - Moderately so - Very much so
10. **I feel comfortable** Not at all - Somewhat - Moderately so - Very much so
11. **I feel self confident** Not at all - Somewhat - Moderately so - Very much so
12. **I feel nervous** Not at all - Somewhat - Moderately so - Very much so
13. **I am jittery** Not at all - Somewhat - Moderately so - Very much so
14. **I feel indecisive** Not at all - Somewhat - Moderately so - Very much so
15. **I am relaxed** Not at all - Somewhat - Moderately so - Very much so
16. **I feel content** Not at all - Somewhat - Moderately so - Very much so
17. **I am worried** Not at all - Somewhat - Moderately so - Very much so
18. **I feel confused** Not at all - Somewhat - Moderately so - Very much so
19. **I feel steady** Not at all - Somewhat - Moderately so - Very much so
20. **I feel pleasant** Not at all - Somewhat - Moderately so - Very much so

Participant Number: Session Number:
Date:

A number of statements which people have used to describe themselves are given on the following pages. Read each statement and then circle the appropriate answer to indicate how you ***generally feel***.

Almost never - Sometimes - Often - Almost always

21. I feel pleasant

Not at all - Somewhat - Moderately so - Very much so

22. I feel nervous and restless

Not at all - Somewhat - Moderately so - Very much so

23. I feel satisfied with myself

Not at all - Somewhat - Moderately so - Very much so

24. I wish I could be as happy as others seem to be

Not at all - Somewhat - Moderately so - Very much so

25. I feel like a failure

Not at all - Somewhat - Moderately so - Very much so

26. I feel rested

Not at all - Somewhat - Moderately so - Very much so

27. I am "calm, cool and collected"

Not at all - Somewhat - Moderately so - Very much so

28. I feel that difficulties are piling up so that I cannot overcome them

Not at all - Somewhat - Moderately so - Very much so

29. I worry too much over something that doesn't matter

Not at all - Somewhat - Moderately so - Very much so

30. I am happy

Not at all - Somewhat - Moderately so - Very much so

Participant Number:

Session Number:
Date:

31. I have disturbing thoughts

Not at all - Somewhat - Moderately so - Very much so

32. I lack self confidence

Not at all - Somewhat - Moderately so - Very much so

33. I feel secure

Not at all - Somewhat - Moderately so - Very much so

34. I make decisions easily

Not at all - Somewhat - Moderately so - Very much so

35. I feel inadequate

Not at all - Somewhat - Moderately so - Very much so

36. I am content

Not at all - Somewhat - Moderately so - Very much so

37. Some unimportant thought runs through my mind and bothers me

Not at all - Somewhat - Moderately so - Very much so

38. I take disappointments so keenly that I can't put them out of my mind

Not at all - Somewhat - Moderately so - Very much so

39. I am a steady person

Not at all - Somewhat - Moderately so - Very much so

40. I get in a state of tension or turmoil when I think over my recent concerns and interests

Not at all - Somewhat - Moderately so - Very much so

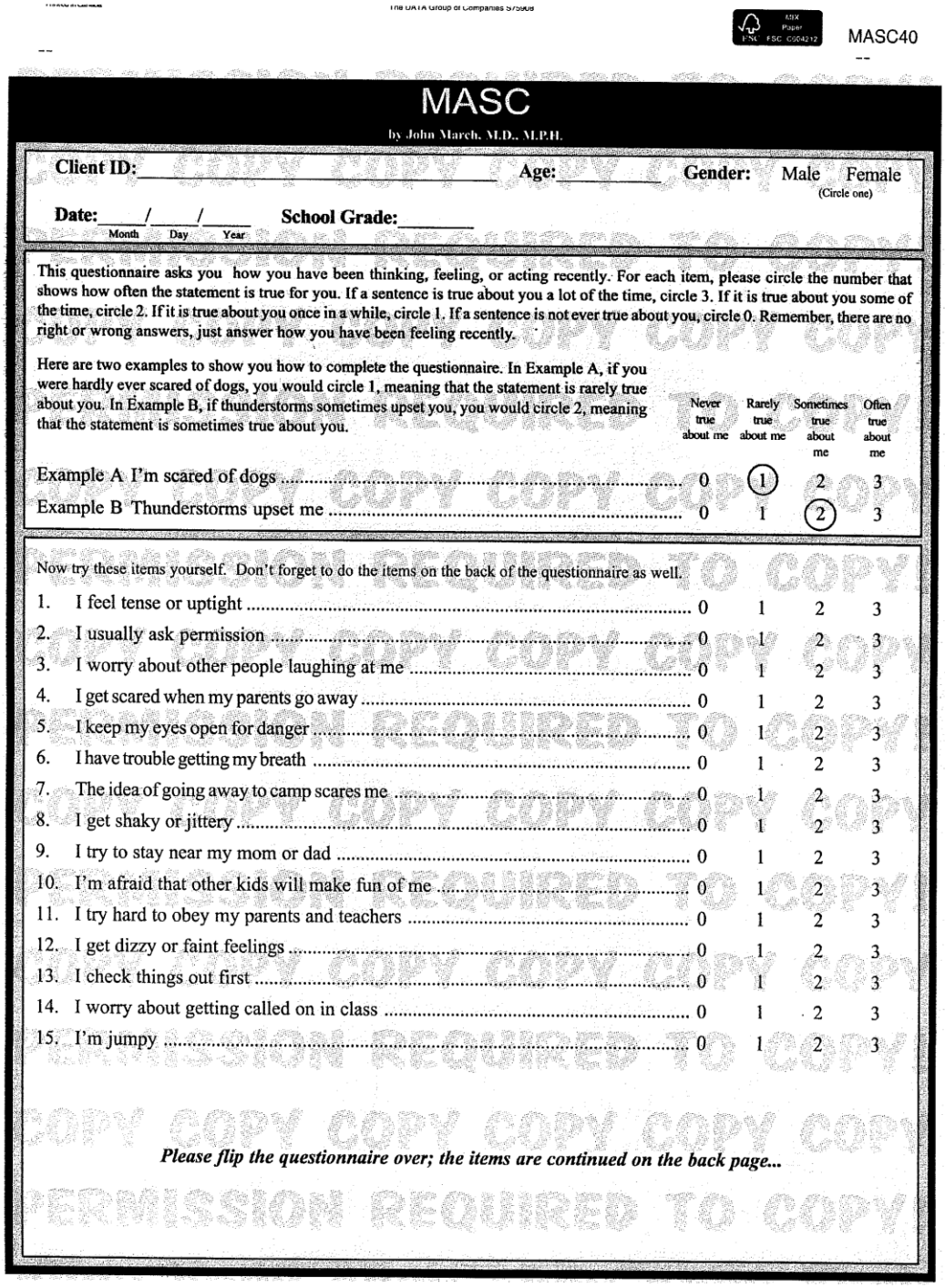
Appendix C

Screen for Child Anxiety Related Disorders (SCARED)

Child Version—Pg. 2 of 2 (To be filled out by the CHILD)

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
21. I worry about things working out for me.	○	○	○
22. When I get frightened, I sweat a lot.	○	○	○
23. I am a worrier.	○	○	○
24. I get really frightened for no reason at all.	○	○	○
25. I am afraid to be alone in the house.	○	○	○
26. It is hard for me to talk with people I don't know well.	○	○	○
27. When I get frightened, I feel like I am choking.	○	○	○
28. People tell me that I worry too much.	○	○	○
29. I don't like to be away from my family.	○	○	○
30. I am afraid of having anxiety (or panic) attacks.	○	○	○
31. I worry that something bad might happen to my parents.	○	○	○
32. I feel shy with people I don't know well.	○	○	○
33. I worry about what is going to happen in the future.	○	○	○
34. When I get frightened, I feel like throwing up.	○	○	○
35. I worry about how well I do things.	○	○	○
36. I am scared to go to school.	○	○	○
37. I worry about things that have already happened.	○	○	○
38. When I get frightened, I feel dizzy.	○	○	○
39. I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport.)	○	○	○
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.	○	○	○
41. I am shy.	○	○	○

Appendix D



MASC40

MASC

by John March, M.D., M.P.H.

Client ID:_____ **Age:**_____ **Gender:** Male Female (Circle one)

Date:____/____/____ **School Grade:**_____
Month Day Year

This questionnaire asks you how you have been thinking, feeling, or acting recently. For each item, please circle the number that shows how often the statement is true for you. If a sentence is true about you a lot of the time, circle 3. If it is true about you some of the time, circle 2. If it is true about you once in a while, circle 1. If a sentence is not ever true about you, circle 0. Remember, there are no right or wrong answers, just answer how you have been feeling recently.

Here are two examples to show you how to complete the questionnaire. In Example A, if you were hardly ever scared of dogs, you would circle 1, meaning that the statement is rarely true about you. In Example B, if thunderstorms sometimes upset you, you would circle 2, meaning that the statement is sometimes true about you.

	Never true about me	Rarely true about me	Sometimes true about me	Often true about me
Example A I'm scared of dogs	0	(1)	2	3
Example B Thunderstorms upset me	0	1	(2)	3

Now try these items yourself. Don't forget to do the items on the back of the questionnaire as well.

1. I feel tense or uptight	0	1	2	3
2. I usually ask permission	0	1	2	3
3. I worry about other people laughing at me	0	1	2	3
4. I get scared when my parents go away	0	1	2	3
5. I keep my eyes open for danger	0	1	2	3
6. I have trouble getting my breath	0	1	2	3
7. The idea of going away to camp scares me	0	1	2	3
8. I get shaky or jittery	0	1	2	3
9. I try to stay near my mom or dad	0	1	2	3
10. I'm afraid that other kids will make fun of me	0	1	2	3
11. I try hard to obey my parents and teachers	0	1	2	3
12. I get dizzy or faint feelings	0	1	2	3
13. I check things out first	0	1	2	3
14. I worry about getting called on in class	0	1	2	3
15. I'm jumpy	0	1	2	3

Please flip the questionnaire over; the items are continued on the back page...

COPY COPY COPY COPY COPY COPY
PERMISSION REQUIRED TO COPY

PERMISSION REQUIRED TO COPY!

MASC

by John March, M.D., M.P.H.

	never true about me	rarely true about me	sometimes true about me	often true about me
16. I'm afraid other people will think I'm stupid	0	1	2	3
17. I keep the light on at night	0	1	2	3
18. I have pains in my chest	0	1	2	3
19. I avoid going to places without my family	0	1	2	3
20. I feel strange, weird, or unreal	0	1	2	3
21. I try to do things other people will like	0	1	2	3
22. I worry about what other people think of me	0	1	2	3
23. I avoid watching scary movies and TV shows	0	1	2	3
24. My heart races or skips beats	0	1	2	3
25. I stay away from things that upset me	0	1	2	3
26. I sleep next to someone from my family	0	1	2	3
27. I feel restless and on edge	0	1	2	3
28. I try to do everything exactly right	0	1	2	3
29. I worry about doing something stupid or embarrassing	0	1	2	3
30. I get scared riding in the car or on the bus	0	1	2	3
31. I feel sick to my stomach	0	1	2	3
32. If I get upset or scared, I let someone know right away	0	1	2	3
33. I get nervous if I have to perform in public	0	1	2	3
34. Bad weather, the dark, heights, animals, or bugs scare me	0	1	2	3
35. My hands shake	0	1	2	3
36. I check to make sure things are safe	0	1	2	3
37. I have trouble asking other kids to play with me	0	1	2	3
38. My hands feel sweaty or cold	0	1	2	3
39. I feel shy	0	1	2	3

Thank you for completing the questionnaire.

PERMISSION REQUIRED TO COPY

References

Alexander, J. F. (1973). Defensive and supportive communication in normal and deviant families. *Journal of Consulting and Clinical Psychology, 40,* 223-231.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* 4th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Angold, A., Egger, H., Erkanli, A., & Keeler, G. (2005). Prevalence and comorbidity of psychiatric disorders in preschoolers attending a large pediatric service. Unpublished manuscript.

Aydin, A. (in press). Parental Involvement in Cognitive-Behavioral Therapy for Children with Anxiety Disorders. *Turkish Journal of Psychiatry*.

Barmish, A. J., & Kendall, P. C. (2005). Should Parents be Co-Clients in Cognitive-Behavioral Therapy for Anxious Youth? *Journal of Clinical Child & Adolescent Psychology, 34*(3), 569–581.

Bayer, J. K., Sanson, A. V., Hemphill, S. A., (2006). Parent influences on early childhood internalizing difficulties. *Journal of Applied Developmental Psychology, 27,* 542-559. Doi: 10.1016/j.appdev.2006.08.002

Beauchaine, T. P., & Hinshaw, S. P. (Eds.). (2013). *Child and Adolescent Psychopathology* (2nd ed.). Hoboken, NJ: John Wiley.

Beidel, D. C., & Turner, S. M. (1997). At risk for anxiety: I. Psychopathology in the offspring of anxious parents. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(7), 918-924.

Bergen, S. E., Gardner, C. O., & Kendler, K. S. (2007). Age-related changes in heritability of behavioral phenotypes over adolescence and young adulthood: a meta-analysis. *Twin Research and Human Genetics, 10*(3), 423-433.

Berman, S. T., Weems, C. F., Silverman, W. K., & Kurtines, W. M. (2000). Predictors and outcome in exposure-based cognitive behavioral treatments for phobic and anxiety disorders in children. *Behavior Therapy, 31,* 713-731.

Biederman, J., Faraone, S. V., Hirshfeld-Becker, D. R., Friedman, D., Robin, J. A., & Rosenbaum, J. F. (2001). Patterns of psychopathology and dysfunction in high-risk children of parents with panic disorder and major depression. *American Journal of Psychiatry, 158,* 49-57.

Birmhaer, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., & Neer, S.M. (1997). The screen for child anxiety related emotional disorders (SCARED): Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(4), 545-553.

Bögels, S. M., & Brechman-Toussaint, M. L. (2006). Family Issues in Child Anxiety: Attachment, Family Functioning, Parental Rearing and Beliefs. *Clinical Psychology Review, 26,* 834–856.

Bögels, S. M., & Phares, V. (2008). Fathers' role in the etiology, prevention, and treatment of child anxiety: A review and new model. *Clinical Psychology Review, 28,* 539-558.

Boszormenyi-Nagy, I., & Ulrich, D. N. (1981). Contextual family therapy. In A. S. Gurman & D. P. Kniskern (Eds.). *Handbook of family therapy*. New York: Brunner/Mazel.

Breinholst, S., Esbjorn, B. H., Reinholdt-Dunne, M. L., & Stallard, P. (2012). CBT for the treatment of child anxiety disorders: A review of why parental involvemtn has not enhanced outcomes. *Journal of Anxiety Disorders*, *26*, 416–424.

Burstein, M., Ginsburg, G. S., Petras, H., & Ialongo, N. (2010). Parent psychopathology and youth internalizing symptoms in an urban community: A latency growth model analysis. *Child Psychiatry and Human Development, 41,* 61-87.

Carlson, C. I. (2003). Assessing the family context. In C. R. Reynolds & R. W. Kamphaus (Eds.), *Handbook of Psychological and Educational Assessment of Children: Personality, Behavior, and Context* (2nd ed., pp. 473-492). New York, NY: Guilford Press.

Carter, R., Silverman, W. K., & Jaccard, J. (2011). Sex variations in youth anxiety symptoms: Effects of pubertal development and gender role orientation. *Journal of Clinical Child and Adolescent Psychology, 40*, 730-741.

Cobham, V. E., Dadds, M. R., & Spence, S. H. (1998). The role of parental anxiety in the treatment of childhood anxiety. *Journal of Consulting and Clinical Psychology, 66,* 893-905.

Cooley, M. R., & Boyce, C. A. (2004). An introduction to assessing anxiety in child and adolescent multiethnic populations: Challenges and opportunities for enhancing knowledge and practice. *Journal of Clinical Child & Adolescent Psychology, 33* (2), 210-215, doi:10.1207/s15374424jccp3302_1

Costello, E. J., Egger, H. L., & Angold, A. (2011). The developmental epidemiology of anxiety disorders, phenomenology, prevalence, and comorbidity. In W. K. Silverman & A. Fields (Eds.), *Anxiety disorders in children and adolescents: Research, assessment, and intervention* (2nd ed.). Cambridge, United Kingdom: Cambridge University Press.

Compton, S. N., Walkup, J. T., Albano, A. M., Piacentini, J. C., Birmaher, B., Sherrill, J. T., … March, J. S. (2010). Child/Adolescent Anxiety Multimodal Study (CAMS): rationale, design, and methods. *Child and Adolescent Psychiatry & Mental Health*, *4*(1), 1–15.

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, *60*, 837–844. doi:10.1001/archpsyc.60.8.837

Crawford, A. M., & Manassis, K. (2001). Familial Predictors of Treatment Outcome in Childhood Anxiety Disorders. *Journal of American Academic Child Adolescent Psychiatry*, *40*(10), 1182–1189.

Creswell, C., & Cartwright-Hatton, S. (2007). Family treatment of child anxiety: Outcomes, limitations and future directions. *Clinical Child and Family Psychology, 10*, 232-252.

Cummings, E. M. (1994). Marital conflict and children's functioning. *Social Development, 3*, 16-36.

Cummings, E. M., Goeke-Morey, M. C., & Papp, L. M. (2003). Children's responses to everyday marital conflict tactics in the home. *Child Development, 74*, 1918-1929.

Derryberry, D., & Rothbart, M. K. (1997). Reactive and effortful processes in the organization of temperament. *Developmental Psychopathology, 9*, 633-652.

Drake, K. L., & Ginsburg, G. S. (2012). Family Factors in the Development, Treatment, and Prevention of Childhood Anxiety Disorders. *Clinical Child and Family Psychology Review, 15*, 144–162.

Drake, K. L., & Kearney, C. A. (2008). Child anxiety sensitivity and family environment as mediators of the relationship between parent psychopathology, parent anxiety sensitivity, and child anxiety. *Journal of Psychopathology and Behavioral Assessment, 30*, 79-86.

Eckshtain, D., & Gaynor, S. T. (2013). Combined Individual Cognitive Behavior Therapy and Parent Training for Childhood Depression: 2- to 3-Year Follow-Up. *Child and Family Behavior Therapy, 13*, 132–143.

Eley, T. C., (2001). Contributions of behavioral genetics research: Quantifying genetic, shared environmental and nonshared environmental influences. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiey*, 45-59. London, United Kingdom: Oxford University Press.

Epstein, N. B., Rakoff, V., & Sigal, J. (1962). *Family categories schema.* Monograph prepared in the Family Research Group of the Department of Psychiatry, Jewish General Hospital, Montreal, in collaboration with the McGill University Human Development Study.

Epstein, N. B., Rakoff, V., & Sigal, J. (1968). *The Family Categories Schema.* Unpublished manuscript, Jewish General Hospital, Department of Psychiatry, Montreal, Quebec, Canada.

Epstein, N. B., Ryan, C. E., Bishop, D. S., Miller, I. W., & Keitner, G. I. (2003). The McMaster Model: A view of healthy family functioning. In F. Walsh (Ed.), *Normal Family Processes* (pp. 581-607). New York: Guilford Press.

Esbjorn, B. H., Somhovd, M. J., Nielsen, S. K., Normann, N., Leth, I., & Reinholdt-Dunne, M. L. (2014). Parental changes after involvement in their anxious child's cognitive behavior therapy. *Journal of Anxiety Disorders, 28*, 664–670.

Faul, F., Erdfelder, E., Lang, A.-G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*, 175-191.

Festen, H., Hartman, C. A., Hogendoorn, S., de Haan, E., Prins, P. J. M., Reichart, C. G., … Nauta, M. H. (2013). Temperament and parenting predicting anxiety change in cognitive behavioral therapy: The role of mothers, fathers, and children. *Journal of Anxiety Disorders*, *27*, 289–297.

Fox, N. A., Nichols, K. E., Henderson, H. A., Rubin, K., Schmidt, L., Hamer, D., … Pine, D. S. (2005). Evidence for a gene-environment interaction in predicting behavioral inhibition in middle childhood. *Psychological Science, 16,* 921-926.

Ginsburg, G. S., & Schlossberg, M. C. (2002). Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*, *14*, 143–154.

Ginsburg, G. S., & Silverman, W. K. (2000). Gender role orientation and fearfulness in children with anxiety disorders. *Journal of Anxiety Disorders, 14,* 57-68.

Ginsburg, G. S., Silverman, W. K., & Kurtines, W. K. (1995). Family Involvement in Treating Children with Phobic and Anxiety Disorders: A Look Ahead. *Clinical Psychology Review*, *15*(5), 457–473.

Ginsburg, G. S., Siqueland, L., Masia-Warner, C., & Hedtke, K. A. (2004). Anxiety Disorders in Children: Family Matters. *Cognitive and Behavioral Practice*, *11*, 28–43.

Gonzalez, A., Peris, T. S., Vreeland, A., Kiff, C. J., Kendall, P. C., Compton, S. N., … Piacentini, J. C. (2014). Parental Anxiety as a Predictor of Medication and CBT Response for Anxious Youth. *Child Psychiatry and Human Development*, *3*. doi:10.1007/s10578-014-0454-6

Greco, L. A., & Morris, T. L. (2005). Factors influencing the link between social anxiety and peer acceptance: Contributions of social skills adn close friendships during middle childhood. *Behavior Therapy*, *36*, 197–205.

Gregory, A. M., & Eley, T. C. (2011). The genetic basis of child and adolescent anxiety. In W. K. Silverman & A. Fields (Eds.), *Anxiety disorders in children and adolescents: Research, assessment, and intervention* (2nd ed.). Cambridge, United Kingdom: Cambridge University Press.

Headman, N. C., & Cornille, T. A. (2008). Family functioning patterns as predictors of engagement: Which families participate in services and which ones do not? *Journal of Family Social Work*, *11*(2), 117–140. doi:10.1080/10522150802165630

Hughes, A. A., Hedtke, K. A., & Kendall, P. C. (2008). Family Functioning in Families of Children with Anxiety Disorders. *Journal of Family Psychology*, *22*(2), 325–328.

Hunter, L. R., & Schmidt, N. B. (2010). Anxiety psychopathology in African American adults: literature review and development of an empirically informed sociocultural model. *Psychological Bulletin, 136,* 211-235. Doi: 10.1037/a0018133.

Jacob, T. (1995). The role of the time frame in the assessment of family functioning. *Journal of Marital and Family Therapy, 21*, 281-286.

Jekielek, S. M. (1998). Parental conflict, marital disruption and children's emotional well-being. *Social Forces, 76,* 905-936.

Jongerden, L., & Bögels, S. M. (2014). Parenting, Family Functioning and Anxiety-Disordered Children: Comparisons to Controls, Changes After Family Versus Child CBT. *Journal of Child and Family Studies*. doi:10.1007/s10826-014-0005-6

Kagan, J., Reznick, S., & Snidman, N. (1987). The physiology and psychology of behavioral inhibition in children. *Child Development, 58*, 1459-1473.

Katz, L. F., & Low, S. M. (2004). Marital violence, co-parenting, and family-level processes in relation to children's adjustment. *Journal of Family Psychology, 18*, 372–382.

Kazdin, A. E. (1999). Current (lack of) status of theory in child and adolescent psychotherapy research. *Journal of Clinical Child Psychology, 28*(4), 533-543.

Keeton, C. P., Ginsburg, G. S., Drake, K. L., Sakolsky, D., Kendall, P. C., Birmaher, B., … Walkup, J. T. (2013). Benefits of Child-Focused Anxiety Treatments for Parents and Family Functioning. *Depression and Anxiety, 30*, 865–872.

Keith, T. Z. (2006). *Multiple Regression and Beyond*. Boston, MA: Pearson Education, Inc.

Kendall, P. C., & Hedtke, K. A. (2006). *Cognitive-Behavioral Therapy for Anxious Children: Therapist Manual* (3rd ed.). Ardmore, PA: Workbook Publishing.

Kendall, P. C., Hudson, J. L., Gosch, E., Flannery-Schroeder, E., & Suveg, C. (2008). Cognitive-Behavioral Therapy for Anxiety Disordered Youth: A Randomized Clinical Trial Evaluating Child and Family Modalities. *Journal of Consulting and Clinical Psychology, 76*(2), 282–297.

Kendall, P. C., Settipani, C. A., & Cummings, C. M. (2012). No Need to Worry: The Promising Future of Child Anxiety Research. *Journal of Clinical Child & Adolescent Psychology, 41*(1), 103–115.

Kessler, R.C., Berglund, P., Demler, O., Jin, R., & Walters, E.E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593-602.

Kiliç, E. Z., Özgüven, H. D., & Sayil, I. (2003). The psychological effects of parental mental health on children experiencing disaster: The experience of Bolu Earthquake in Turkey. *Family Process, 42*(4), 485–495.

Leavitt, H. J. (1951). Some effects of certain communication patterns on group performance. *Journal of Abnormal Social Psychology, 46*, 38-50.

Lonigan, C. J., Carey, M. P., & Finch Jr., A. J. (1994). Anxiety and depression in children and adolescents: Negative affectivity and the utility of self-reports. *Journal of Consulting Clinical Psychology, 62*, 1000-1008.

Lyneham, H. J., Abbott, M. J., & Rapee, R. M. (2007). Inter-rater reliability of the anxiety disorders interview schedule for DSM-IV: Child and parent versions. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*, 731-736. doi:10.1097/chi.
0b013e3180465a009

March, J.S. (1997). *Manual for the multidimensional anxiety scale for children (MASC).* Toronto, Canada: Multi-Health Systems.

March, J. S., & Albano, A. M. (1998). New developments in assessing pediatric anxiety disorders. *Advances in Clinical Child Psychology, 20*, 213-241.

March, J.S., Parker, J.D., Sullivan, K., Stallings, P., & Conners, C.K. (1997). The Multidimensional Anxiety Scale for Children (MASC): Factor structure,

reliability, and validity. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(4), 554-565.

March, J.S., Sullivan, K., & Parker, J. (1999). Test-retest reliability of the Multidimensional Anxiety Scale for Children. *Journal of Anxiety Disorders, 13*(4): 349-358.

McCombs, T. A., & Forehand, R. (1993). The role of paternal variables in divorced and married families: Predictability of adolescent adjustment. *American Journal of Orthopsychiatry, 63,* 126-135.

McHale, J. P., & Rasmussen, J. L. (1998). Coparental and family group-level dynamics during infancy: Early family precursors of child and family functioning during preschool. *Development and Psychopathology, 10*, 39-59.

Merikangas, K. R., Avenevoli, S., Dierker, L., & Grillon, C. (1999). Vulnerability factors among children at risk for anxiety disorders. *Biological Psychiatry, 46,* 1523-1535.

Messer, S. C., & Beidel, D. C. (1994). Psychosocial correlates of childhood anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 33*, 975–983.

Muris, P., Field, A. P. (2008). Distorted cognition and pathological anxiety in children and adolescents. *Cognition and Emotion, 22* (3), 395-421.

Murray, L., Creswell, C., & Cooper, P. J. (2009). The Development of Anxiety Disorders in Childhood: An Integrative Review. *Psychological Medicine, 39,* 1413–1423.

Neal, A. M., & Turner, S. M. (1991). Anxiety disorders research with African Americans: Current status. *Psychological Bulletin, 109,* 400-410. Doi: 10.1037//0033-2909.109.3.400.

Ollendick, T. H., King, N. J., & Frary, R. B. (1989). Fears in children and adolescents: Reliability and generalizability across gender, age, and nationality. *Behaviour Research and Therapy, 27*, 19-26.

Ollendick, T. H., Langley, A. K., Jones, R. T., & Kephart, C. (2001). Fear in children and adolescents: Relations with negative life events, attributional style, and avoidant coping. *Journal of Child Psychology and Psychiatry, 42,* 1029-1034.

Ollendick, T. H., Matson, J. L., & Helsel, W. J. (1985). Fears in children and adolescents: Normative data. *Behaviour Research and Therapy, 23* 465-467.

Ost, L., & Treffers, P. D. (2003). Onset, course, and outcome for anxiety disorders in children. In W. K. Silverman & P. D. Treffers (Eds.), *Anxiety disorders in children and adolescents* (1st ed.). Cambridge, United Kingdom: Cambridge University Press.

Pérez-Edgar, K., & Fox, N. A. (2005). Temperament and anxiety disorders. *Child and Adolescent Psychiatric Clinics of North America, 14*, 681-706.

Pina, A. A., Little, M., Wynne, H., Beidel, D. C. (2014). Assessing social anxiety in African American youth using the Social Phobia and Anxiety Inventory for Children. *Journal of Abnormal Child Psychology, 42,* 311-320.

Podell, J. L., & Kendall, P. C. (2011). Mothers and fathers in family cognitive-behavioral therapy for anxious youth. *Journal of Child and Family Studies, 20,* 182-195.

Siddaway, A. P., Wood, A. M., & Cartwright-Hatton, S. (2013). Involving Parents in Cognitive-Behavioral Therapy for Child Anxiety Problems: A Case Study. *Clinical Case Studies*, *20*(10), 1–14.

Silk, J. S., Sheeber, L., Tan, P. Z., Ladouceur, C. D., Forbes, E. E., McMakin, D. L., … Ryan, N. D. (2013). "You can do it!": The role of parental encouragement of bravery in child anxiety treatment. *Journal of Anxiety Disorders*, *27*, 439–446.

Silverman, W.K., & Albano, A.M. (1996). *Anxiety Disorders Interview Schedule for DSM-IV: Parent interview schedule* (Vol. 1). London: Oxford University Press.

Silverman, W. K., Kurtines, W. K., Jaccard, J., & Pina, A. A. (2009). Directionality of Change in Youth Anxiety Treatment Involving Parents: An Initial Examination. *Journal of Consulting and Clinical Psychology*, *77*(3), 474–485.

Silverman, W. K., & Ollendick, T. H. (2005). Evidence-Based Assessment of Anxiety and Its Disorders in Children and Adolescents. *Journal of Clinical Child & Adolescent Psychology*, *34*(3), 380–411.

Silverman, W. K., Saavedra, L. M., & Pina, A. A. (2001). Test-retest reliability of anxiety symptoms and diagnoses with Anxiety Disorders Interview Schedule for *DSM-IV:*Child and parent versions. *Journal of the American Academy of Child and Adolescent Psychiatry, 40,* 937-944, doi:10.1097/00004583-200108000-00016

Skinner, H., Steinhauer, P., & Sitarenios, G. (2000). Family Assessment Measure (FAM) and Process Model of Family Functioning. *Journal of Family Therapy*, *22*, 190–210.

Skinner, H.A., Steinhauer, P., & Santa-Barbara, J. (1983). The Family Assessment Measure. *Canadian Journal of Community Mental Health, 2,* 91-105.

Skinner, H., Steinhauer, P., & Sitarenios, G. (2000). Family Assessment Measure (FAM) and Process Model of Family Functioning. *Journal of Family Therapy*, *22*, 190–210.

Silverman, W. K., & Carter, R. (2006). Anxiety disturbance in girls and women. In J. Worell & C. Goodheart (Eds.), *Handbook of girls' and women's psychological health*, 60-68. New York, NY: Oxford University Press.

Spiegel, J. P. (1957). The resolution of role conflict within the family. In M. Greenblatt, D. J. Levinson, & R. H. Williams (Eds.). *The patient and the mental hospital.* Glencoe, ILL: Free Press.

Spielberger, C.D., Gorsuch, R.L., & Luschene, R. (1970). *Test Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Stark, K.S., Banneyer, K.B., & Wang, L.W. (in progress). *Coping Cat Parent Manual.*

Steinhauer, P. D. (1987). The family as a small group. *Family Interaction and Psychopathology: Theories, methods, and findings,1,* 67-115.

Steinhauer, P. D., Santa-Barbara, J., & Skinner, H. (1984). The Process Model of Family Functioning. *Canadian Journal of Psychiatry, 29,* 77-88.

Stainhauer, P. D., & Tisdall, G. W. (1984). The integrated use of individual and family psychotherapy. *Canadian Journal of Psychiatry, 29,* 98-111.

Tallman, I. (1970). The family as a small problem solving group. *Journal of Marriage and the Family*, *32*, 94-104.

Tanaka, A., Raishevich, N., & Scarpa, A. (2010). Family conflict and childhood aggression: The role of child anxiety. *Journal of Interpersonal Violence, 25*, 2127-2143.

Tharp, R. (1965). Marriage roles, child development, and family treatment. *American Journal of Orthopsychiatry, 35,* 531-538.

Thienemann, M., Moore, P., & Tompkins, K. (2006). A parent-only group intervention for children with anxiety disorders: Pilot study. *American Academy of Child & Adolescent Psychiatry, 45*(10), 37-46.

Turner, S., Beidel, D., & Costello, A. (1987). Psychopathology in the offspring of anxiety disorders patients. *Journal of Consulting and Clinical Psychology, 55*, 229-235.

van Ameringen, M., Mancini, C., & Favolden, P. (2003). The impact of anxiety disorders on educational achievement. *The Journal of Anxiety Disorders, 17*, 561–571.

Varela, R. E., & Hensley-Maloney, L. (2009). The influence of culture on anxiety in Latino youth: A review. *Clinical Child and Family Psychology Review, 12*, 217-233.

Varela, R. E., Vernberg, E. M., Sanchez-Sosa, J. J., Riveros, A., Mitchell, M., & Mashunkashey, J. (2004). Anxiety reporting and culturally associated interpretation biases and cognitive schemas: A comparison of Mexican, Mexican American and European American families. *Journal of Clinical Child and Adolescent Psychology, 33,* 237-247.

Vasey, M. W., & Dadds, M. R. (2001). *The developmental psychopathology of anxiety.* New York, NY: Oxford University Press.

Victor, A. M., Bernat, D. H., Bernstein, G. A., & Layne, A. E. (2007). Effects of parent and family characteristics on treatment outcome of anxious children. *Journal of Anxiety Disorders, 21*, 835–848.

Walkup, J. T., Albano, A. M., Piacentini, J., Birmaher, B., Compton, S. N., Sherril, … & Kendall, P. C. (2008). Cognitive behavioral therapy, setraline, or a combination in childhood anxiety. *The New England Journal of Medicine, 359*(26), 2753-2766.

Walsh, F. (2011). The new normal: Diversity and complexity in 21st-century families. In F. Walsh (Ed.), *Normal Family Processes: Growing Diversity and* (pp. 3-27). New York, NY: Guilford Press.

Warner, V., Mufson, L., Weissman, M. (1995). Offspring at high risk for depression and anxiety: Mechanisms of psychiatric disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*, 786-797.

Weems, C. F., & Silverman, W. K. (2013). Anxiety Disorders. In T. P. Beauchaine & S. P. Hinshaw (Eds.), *Child and Adolescent Psychopathology*. Hoboken, New Jersey: John Wiley & Sons, Inc.

Weems, C. F., Zakem, A., Costa, N. M., Cannon, M. F., & Watts, S. E. (2005). Physiological response and childhood anxiety: Association with symptoms of anxiety disorders and cognitive bias. *Journal of Clinical Child and Adolescent Psychology, 34*, 712-723.

Wilson, C., & Hughes, C. (2011). Worry, beliefs about worry and problem solving in young children. *Behavioural and Cognitive Psychotherapy*, *39*(5), 507–521.

Wijsbroek, S. A. M., Hale III, W. W., Raaijmakers, Q. A. W., & Meeus, W. H. J. (2011). The direction of effects between perceived parental behavioral control and psychological control and adolescents' self-reported GAD and SAD symptoms. *European Child and Adolescent Psychiatry, 20,* 361–371.

Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry, 44*(1), 134-151.

Wood, J. J., Piacentini, J. C., Bergman, R. L., McCracken, J., & Barrios, V. (2002). Concurrent validity of the anxiety disorders section of the Anxiety Disorders Interview Schedule for *DSM-IV*: Child and parent versions. *Journal of Clinical Child & Adolescent Psychology, 31,* 335-342. doi:10.1207/1537442027600825595